HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 20, NO. 2, ABSTRACTS 150-300. FEBRUARY 1980

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

150. ROYAL COLLEGE OF GENERAL PRACTITIONERS. **General practitioner hospitals: report of a working party.** London, Royal College of General Practitioners, 1979, 29pp.

General Practitioner (G.P.) Hospitals are successors of the small, local cottage hospitals, and a brief history from 1731 is given. Since 1973 the Department of Health and Social Security (DHSS) has advocated the establishment of community hospitals to complement the District General hospitals. The DHSS intended to close the G.P. Hospitals of under 50 beds, remove obstetric facilities and close casualty and surgery departments; geriatric and long-stay care was to be encouraged. The authors make a case for the retention of G.P. Hospitals; they recommend more remedial therapists and radiographers, plus more beds and day ward facilities. It is felt that relatively small amounts of money may benefit a far larger number of people than some expensive technical equipment in District General Hospitals.

HOSPITALS IN OTHER COUNTRIES

151. SPRI. Sjukhemmens utemiljö. **[External environments at nursing homes.]** (Spri Rapport 20; Projekt 5036) Stockholm, Spri, 1979, 28pp.

The external environment of nursing homes should be an important consideration at the planning stage of any new building. The long-stay patient often has limited mobility and can seldom leave the nursing home grounds. In this situation, the garden is an important part of the home. In choosing a site, preference should be given to a relatively flat and level site where a number of large trees can be protected and preserved during the building period and be included in the garden. When the garden is being designed, the needs of the physically handicapped should be taken into consideration. The design of outside doors should be given particularly careful consideration, thresholds and steps must not impede the patients. Major panorama window areas and the garden should be co-ordinated so that there is an attractive outside view all year round.

152. EICHHORN, S. and SAHL, R. J. 25 Jahre Deutsches Krankenhausinstitut. **[25 years of the German Hospital Institute.]** *Krankenhaus*, Stuttgart, 1979, Feb., supplement; pp. 1-5.

The Deutsches Krankenhausinstitut [German Hospital Institute] was founded in December 1953 to meet the need for information and advice on all aspects of hospital design and administration which arose as the West German hospital service was being re-developed after the Second World War. Since 1969 the Institute has been designated 'an institute working in collaboration with the University of Dusseldorf'. This paper surveys the first 25 years of the Institute's activities under the following headings: (i) organization; (ii) research; (iii) documentation; (iv) education; and (v) provision of information and advice. The Institute collaborates with a number of organizations, both national and international, which share its objectives.

153. SAHL, R. J. Stationäre Krankenversorgung in ländlichen Gebieten. **[Inpatient care in rural areas.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, supplement; pp. 1-3.

The increasing specialization and developments in medical technology throw doubt on the survival of the small hospital serving rural and thinly populated areas. This paper puts forward the main arguments for and against the concentration of hospital services in larger towns and the elimination of small local hospitals. From many points of view the small local hospital provides an essential service. It could survive if it were integrated with, or closely linked with, other essential health services such as general and specialist medical practices, the local public health service, the district nursing service, long-stay nursing homes, and homes and housing for the elderly.

PLANNING, DESIGN AND CONSTRUCTION

HOSPITAL DESIGN

See also Abstract No. 232

154. SCHIFFCZYK, D. Vom Therapiekonzept zur Architekturform Betrachtungen über das Terrassenkrankenhaus. **[From the concept of therapy to the form of architecture: observations on the terraced hospital.]** *Krankenhaus*, Stuttgart, 1979, Nov., vol. 71, no. 11, pp. 413-420.

This is a survey of the development of terraced hospital buildings constructed in Germany from 1884 to 1979. Two types of terracing are described: those with successive upper floors set back along the length of the hospital and those where the terracing is width-wise. A list of 52 terraced hospitals gives very brief particulars of each one and there are a number of sketches of different types of hospitals as well as photographs of five of the hospitals.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

155. Dokumentation von Krankenhausprojekten und -Bauten. **[Documentation of hospital projects and buildings.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, supplement; pp. 5-12.

This paper provides very brief descriptions, with photographs and sketch floor plans, of the following nine hospitals recently built in West Germany: Bremerhaven Central Hospital (817 beds, completed in 1976); Florence Nightingale Hospital, Düsseldorf (421 beds, 1975); Filderstadt Hospital (230 beds, 1975); Freudenstadt District Hospital (407 beds, 1976); Idar-Oberstein Municipal Hospital (608 beds, 1972); Offenbach City Hospital (875 beds, 1974); Sigmaringen District Hospital (432 beds, 1979); Soest Hospital (318 beds, 1977); and Wittlich District Hospital (410 beds, 1975).

156. BÄUMER, W. Kapazität von 612 Betten: Krankenhaus Itzehoe. **[The 612-bed Itzehoe Hospital.]** *Krankenhaus*, Stuttgart, 1979, Nov., vol. 71, no. 11, pp. 406-412.

The new 612-bed hospital at Itzehoe (Holstein) was completed in 1975. The long and rather narrow site imposed a cruciform layout. The central five-storey block houses the

ward floors; nursing groups of 18 to 20 beds are in mainly three-bedded rooms arranged on a double corridor plan. Wards are normally on the same floor as the appropriate treatment rooms. The central block also houses kitchens, dining rooms, stores, pharmacy and bed centre. The children's wards, nursing school, and residential blocks are to the west and the 120-bed block for psychiatry and neurology to the east. The paper includes a site plan, an elevation and three detailed floor plans.

157. CARLSTEDT, C.-G. Norra Älvsborgs Lasarett. **[Northern Älvsborg Hospital.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 11, pp. 648, 650, 651.

Construction of the 744-bed Älvsborg County Northern Hospital, half way between Trollhettan and Venersborg, is expected to start in 1980, the first stage being due for completion in 1985. The structure plan has allotted zones for various activities: supply, treatment, bed wards, out-patients department, rehabilitation and psychiatry. The philosophy behind the design incorporated the latest developments in hospital planning, energy-saving policies, wide consultation with staff representatives, and decentralization. Wards are designed for 24 beds with two in reserve; they are arranged as branches from a central corridor stem and occupy five storeys. The first stage will function as a complete 422-bed hospital, and the next five years' extensions will enlarge its activities and facilities, adding another 322 beds. The article is illustrated with a ground plan of the buildings, four alternative plans (including the suggestions of the architects and of the surgical staff) for the operating theatre, and impressions of the paediatric play area.

158. WESTERDAHL, O. Norra Älvsborgs Lasarett—NÄL: nytt länssjukhus för norra länsdelen. **[Northern Älvsborg Hospital—NÄL: a new county hospital for the Northern part of county.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 11, pp. 641, 643, 644.

Älvsborg County is divided into two regions, the southern hospital in Boraas is currently being extended. The northern region, with a population of 173,000, has two hospitals, nine miles apart, and these are being replaced by the new hospital half way between them. The first 58,000 sq.m. stage (planned for completion in 1985), is to have 422 beds, and the further, 35,000 sq.m. extension (which will be started in 1986) will have another 322 beds. The project was planned in detail by 27 advisory groups consisting of representatives of staff, administration and the County architects. The total costs are estimated at s.kr. 600 million at 1977 values, of which the first stage comprises s.kr. 340 million. Costs of equipment are estimated at s.kr. 90 and 140 million respectively. The article is illustrated with an artist's impression of the buildings, a district map, a diagram, and a table of bed distribution by department.

DESIGN OF SPECIAL HOSPITALS OR UNITS

159. BIDER, R. Bauliche und organisatorische Konzeption des Neubaus "Chirurgische Polikliniken" des Universitätsspitals Zürich. **[Structural and organizational concept of the new surgical polyclinic at the Zürich University Hospital.]** *Veska*, Basel, 1979, Oct., vol. 43, no. 10, pp. 563-577.

The new surgical polyclinic, which is an integral part of the department of surgery

of the Zurich University Hospital, has been in use for a year; there are two main sections. Surgical Polyclinic A covers general surgery, abdominal surgery, cancer surgery, surgery of the blood vessels and pacemaker work; it also carries out minor surgery and has student training facilities. Surgical Polyclinic B covers general surgery, surgery of the hand and peripheral nerves, surgery of the peripheral blood vessels, plastic surgery, burns, minor surgery and student training; neuro-surgery and ortho-paedic surgery are also covered. The accommodation is like that of a group practice: with units consisting of doctor's surgeries, secretary's rooms, treatment rooms, laboratory and X-ray rooms. Pre-operative investigations reduce in-patient length of stay and costs, whilst it is not considered to be the function of the polyclinic to provide post-operative care.

WARDS AND PATIENTS' ROOMS

See Abstract No. 228

GARDENS AND GROUNDS, PARKING

See Abstract No. 151

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

See Abstract No. 225

COMMUNICATION SYSTEMS

See also Abstract No. 294

160. GÜNTHER, H. Technische und organisatorische Anforderungen an eine Patientenrufanlage. **[Technical and organizational requirements of a nurse call installation.]** *Krankenhaus*, Stuttgart, 1979, Nov., vol. 71, no. 11, pp. 420-423.

This paper discusses in general terms the requirements for a nurse call installation and the advantages and disadvantages of each. Installations can be central or decentralized; the former has many advantages since it can be linked with a general information and communications system. Other points discussed are the safety of such installations, maintenance and repairs, and the simplest and most suitable systems from the point of view of both patients and nurses.

HEATING

161. Leitsätze für Wärmerückgewinnung in Krankenanstalten. **[Principles of heat recovery in hospitals.]** *Krankenhaus*, Stuttgart, 1979, Nov., vol. 71, no. 11, pp. 395-405.

This paper reproduces verbatim the guidelines on heat recovery in hospitals which

were issued in 1978 by the West German Federal Ministry for Regional Planning, Building and Urban Development. These guidelines were formulated after extensive consultations and discussions, reported in this article, and a thorough survey of the literature was undertaken. The article details the results of some preliminary studies and gives numerous diagrams, tables and formulae.

ENERGY CONSERVATION

See also Abstract No. 161

162. HIERGEIST, A. Energie- und Wasserverbrauch in Allgemeinkrankenhäusern—Ansätze zur Kostenreduzierung. **[Cost reduction in the use of energy and water in general hospitals.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, pp. 452-456.

In the past too little attention has been paid to the cost of energy and water supplies. But the increasing price of energy and the need to reduce environmental pollution make it essential that in future energy-saving should figure largely in the planning and running of hospitals. This paper discusses the possibilities for reducing the costs of energy and water under the following heads: reduction of heating costs; saving energy by means of heat recovery; reduction of refrigeration costs; and reducing the consumption of electricity. The paper is illustrated with a number of tables and graphs.

163. HYMAN, W. A. **The role of the clinical engineer in hospital energy conservation.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, July/Sept., vol. 4, no. 3, pp. 225-229.

The potential for energy saving in hospitals by means of a well-organized programme is enormous. The long term scheme should be run by an energy management committee and should be based on data concerning energy use and areas for possible savings. The hospital engineer should be responsible for conservation gains in the physical plant and some additions or replacements may be cost effective in the long term. All equipment should be kept in good operating condition through planned preventive maintenance. Performance of equipment can often be controlled most economically by a computer system. The co-operation of the hospital staff can conserve energy, for instance, in the reduction of lighting. The clinical engineer can be involved in an energy conservation scheme by: (i) determining conservation procedures; (ii) initiating training courses in the use of medical equipment; (iii) acquiring some familiarity with computer control systems.

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See also Abstract Nos. 167, 192

164. KNIPE, J. **Management of hospital maintenance and operations services.** *Hospital Engineering*, London, 1979, Dec., vol. 33, no. 10, pp. 13-20.

Since the early 1960s a programme of new and improved maintenance and operations management systems has been implemented for the hospitals in the National Health Service in England. This programme continues and some of the systems and techniques which have been or are being brought into use are described in this paper. They cover:

works department staffing (manpower allocations and job appraisal); estate management practices code; planed preventive maintenance; medical engineering maintenance; measurement of performance; safety audits; defect and failure reports; commissioning; the computer in the works department; condition monitoring; feedback; training; and terotechnology.

EQUIPMENT, FITTINGS, FURNITURE

COLOUR SCHEMES

165. PIERMAN, B. C., editor. **Color in the health care environment: proceedings of a special workshop held at the National Bureau of Standards.** (NBS Special Publication No. 516) Washington, D.C., National Bureau of Standards, 1978, vii, 29pp. $1.60

The proceedings contain papers regarding the use of colour in health care environments. The subject is dealt with from the viewpoints of medical doctors, architects, designers and researchers. Standards concerning proper and effective colour, and light selection and use in all phases of hospitals and medical facilities are detailed. Particular problems are related regarding the use of colours in surgical theatres, paediatric and psychiatric wards.

EQUIPMENT GENERALLY

See Abstract Nos. 209, 218

MEDICAL EQUIPMENT

See also Abstract No. 192

166. MOLONEY, T. W. and ROGERS, D. E. **Medical technology—a different view of the contentious debate over costs.** *New England Journal of Medicine*, Boston, Mass., 1979, Dec. 27, vol. 301, no. 26, pp. 1413-1419.

There is a growing conviction that medical technologies are major contributors to escalating costs, and regulating them is generally viewed as the least contentious way to control expenses in the 1980s. Five forms of technology control are being discussed or developed: (i) limit the development of certain technologies; (ii) use cost-benefit studies to set priorities; (iii) limit the distribution of big and expensive technologies within regions; (iv) eliminate the use of technologies of no clinical value; and (v) provide reimbursement for technologies only when used according to protocols. Evidence is presented that technologies such as the computed tomography scanner account for far less of the rising costs than do the collective expenses of thousands of small tests and procedures. Further, the strategies involve substantial practical and conceptual problems that would severely limit its effectiveness. Rather than attempts to harness the big technologies there should be incentives to encourage the more discerning use of all technologies. To this end, the authors propose changes in physician reimbursement and education, and expanded insurance incentives to encourage physicians and hospitals to be more selective in the use of technology.

167. ENGELHARDT, H. Der Einkauf und die Wartung elektromedizinischer Geräte. **[Purchase and maintenance of electro-medical equipment.]** *Krankenhaus-Umschau*, Kulmbach, 1979, Nov., vol. 48, no. 11, pp. 867-869.

An earlier study carried out in Switzerland on 1,463 accidents concerned with electro-medical equipment showed that 64 per cent of the accidents were caused by improper use, 16 per cent by deficient electrical installations, 10 per cent by poor maintenance, and eight per cent by deficient planning or construction of the equipment, only two per cent of the accidents could be regarded as unavoidable and caused by unforeseen circumstances (i.e., were really accidents). It is therefore important that the purchase and maintenance of each piece of equipment should be the responsibility of a specially qualified technical expert. The duties of this expert should include the following: recording capacity loads of equipment and duration of the various examinations; the maintenance of detailed records of equipment; advising medical staff on use; training staff in the servicing of equipment; regular checking of the functioning of equipment; collaborating in the setting up of complex measuring instruments; and the carrying out of repairs insofar as this is possible.

168. WIECK, B. O. Vilka krav skall man ställa på medicinteknisk utrustning? **[What sort of medico-technical equipment is required?]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 11, pp. 663, 665-666, 668-670.

A piece of equipment must be suited to the task it is intended for and to the staff who are to operate it; it should be no more sophisticated than it has to be. Equipment must be very robust, and designed to the electrical and technical standards currently in force. Since equipment is widely used by non-experts, faults are frequent, and an absolute guarantee of service and supply of spares must be written into the contract on purchase. The hospital must employ technical service staff, saving the cost of transport, travel and waiting-time involved in sending equipment away for servicing. The supplier must be pressed to state and if possible guarantee a certain degree of reliability, and must supply all instructions and manuals in non-technical language. Staff must be trained to the highest degree feasible and equipment kept under as favourable conditions as possible. The clinical engineer must be highly qualified, must have full authority to act before and during the purchasing process, and must take charge of equipment during its life-time, whilst working on the research and development of new apparatus. Much modern equipment is: (i) difficult to clean and sterilize; (ii) accompanied by unsatisfactory manuals and instructions; (iii) badly designed; (iv) marketed too hastily, and untested; (v) characterized by bad detailed design and unsuitable accessory apparatus; (vi) not suited to current health and safety legislation; and (vii) totally unstandardized. The article includes illustrations of good and bad equipment design, and examples of simple and impenetrably complicated instructions.

AUDIO-VISUAL EQUIPMENT

169. SPARKS, S. M. **AVLINE for nursing education and research.** *Nursing Outlook*, New York, 1979, Nov., vol. 27, no. 11, pp. 733-737.

The purpose of AVLINE (Audio-Visuals-online) is to enable nursing students and researchers to assess audio-visual instructional materials by providing helpful citations.

The AVLINE data base contains information on non-print educational materials in two categories: (i) instructional packages; and (ii) documentation of lectures and seminars. The data base is organized by topic according to the National Library of Medicine's Medical Subject Headings. Searches can be made for both broad and specific topics and citations to materials may be limited by date, author or medium. A broad search may be valuable when few audio-visual resources are present, whereas a more limited search could be used to assess audio-visual materials in a specific nursing area. A search appropriate to the educational setting can often prevent purchase of unhelpful material and the answers to some research questions may be found in the citations themselves. AVLINE is available through the same on-line computer network as MEDLINE.

ELECTRONIC EQUIPMENT

See Abstract No. 263

TROLLEYS, STRETCHERS, ETC.

170. BRITISH STANDARDS INSTITUTION. **Specification for soiled linen trolleys.** (BS 2854:1979) London, BSI, 1979, [ii], 6pp.

This is a revised edition of a standard first promulgated in 1968. Dimensions have been metricated and extra requirements have been included relating to buffering, the intention being to reduce the risk of damage to the fabric of hospital buildings. Other specifications relate to materials, construction and bag size; there are accompanying diagrams.

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract No. 183

RECRUITMENT AND MANPOWER

See also Abstract No. 296

171. DUXBURY, M. L. and THIESSEN, V. **Staff nurse turnover in neonatal intensive care units.** *Journal of Advanced Nursing*, Oxford, 1979, Nov., vol. 4, no. 6, pp. 591-602.

Staff nurse turnover in neonatal intensive care units (ICUs) in 35 hospitals throughout the United States in 1976 was assessed using three measures: (i) survival-of-leavers curve (relationship of the percentage of nurses leaving by length of service); (ii) median length of service (number of months before 50 per cent of the nurses have terminated their employment); and (iii) crude turnover rate. The results were compared with those from a similar survey in adult ICUs and general infant care units at the same hospitals. It was found that: (i) turnover rates were substantially less than that reported in 1970

for all staff nurses; (ii) mean turnover rates of ICUs, and in particular of the neonatal ICUs, were not significantly higher than those for staff nurses in non-ICUs; (iii) the pattern of turnover among leavers was identical for all types of units; (iv) there was no evidence for a stabilization of turnover following the usual 'induction crisis' as found in the other settings and occupations; (v) there was a significant variation in the turnover rates of neonatal ICUs so that for some of these units turnover is a very serious problem; and (vi) the variation in turnover rates may be due to organizational characteristics of the hospitals and/or units. Suggestions are made for further research.

172. MEJIA, A., PIZURKI, H. and ROYSTON, E. **Physician and nurse migration: analysis and policy implications; report of a WHO study.** Geneva, WHO, 1979, xiv, 476pp. Sw.fr.64. ISBN 92 4156059 2.

The World Health Organization (WHO) has produced a report on the movement of professional manpower. The study was based partly on a statistical inquiry by means of questionnaires and partly on an extensive literature search, which gives rise to a large bibliography. The book is in three parts: (i) a section giving a global description and analysis of the migration problem; (ii) a series of individual studies of 13 countries, both developing and industrialized; and (iii) a summary together with the findings and conclusions. A final short chapter outlines WHO's role of co-operation with member states in designing and implementing plans of action for migration control.

RELATIONS BETWEEN ADMINISTRATIVE AND MEDICAL STAFF

173. THOMPSON, R. E. **Some keys to working with physicians.** *Trustee*, Chicago, Ill., 1979, Nov., vol. 32, no. 11, pp. 33-35.

Hospitals in the United States are gradually discovering the advantages of co-operative management aids, such as: (i) physicians on the board of trustees; (ii) trustee members on certain medical staff committees; (iii) regular reports from the medical staff to the board, and vice-versa; and (iv) occasional joint meetings of the board and the entire medical staff. Doctors are often not interested in organizational activities, but the co-operation of even a few can be helpful, often on an informal basis. If revision of the medical staff organization is needed, this is often best achieved with a small number of committees combining related functions. The efficiency of medical staff committees can be improved by: (i) providing them with needed information; and (ii) sending medical committee chairmen to leadership conferences.

STAFF MANAGEMENT

174. JORIO, T. Stellenplanbewirtschaftung in den zugerischen Akutspitälern. **[Personnel management in the acute hospitals of Zug Canton.]** *Veska*, Basel, 1979, Oct., vol. 43, no. 10, pp. 553, 554.

The health directorate of Zug Canton, Switzerland, has produced, in close collaboration with the Canton Hospital Committee and the acute hospitals, a staffing plan for its hospitals. The aim is to provide guidelines and control measures for hospital administra-

tors as well as to give the cantonal authority more control over staffing matters. It is, however, stressed that individual administrators still retain powers to meet the special conditions in their own hospitals. Staff are divided into categories and direction given as to which groups, or subgroups, can or cannot be interchanged.

STAFF TRAINING

See Abstract Nos. 177, 179-181, 198, 252

SPECIAL CLASSES OF STAFF

MEDICAL STAFF

See also Abstract Nos. 172, 194, 248

175. KING EDWARD'S HOSPITAL FUND FOR LONDON. **The organization of hospital clinical work: report of a King's Fund working party.** (Chairman: T. J. H. Clark). (Project Paper No. 22), London, King's Fund Centre, 1979, 92pp. £1.50

For historical and other reasons a serious imbalance exists in Britain between the number of doctors in the training grades and the number of permanent career posts available for them. The working party recommends a decrease in the number of junior posts and an increase in the number of permanent specialist career posts. There is a call for greater flexibility in training programmes and clinical responsibility, with greater involvement of general practitioners in hospital work and the creation of more than one grade of specialist or consultant. Better training and career opportunities for women are needed and there is scope for re-distribution of some work between doctors and other health professionals.

NURSING STAFF

See also Abstract Nos. 171, 172, 229, 238, 243, 252

176. TRENCHARD, H. **The research nurse.** *Nursing Times*, London, 1980, Jan. 10, vol. 76, no. 2, pp. 61-63.

On reorganization Wandsworth and East Merton Teaching District converted a post of senior nursing officer (projects) at a psychiatric hospital to one of senior nursing officer (research) serving the whole district. Based on the experience gained, this paper discusses: the skills required; the requirements for an effective role; why a research nurse is needed; what a research nurse does; whether it is cost-effective; and the career structure. It is concluded that a research nurse at district level can contribute to a co-ordinated sequence of research, through teamwork, in order to add to the general body of nursing knowledge. The district can be a proving ground and provide the most realistic experience for nurses wishing to specialize in research. Most importantly, she is in the best possible position to implement and evaluate research findings.

177. HENDERSON, V. **Preserving the essence of nursing in a technological age.** *Nursing Times*, London, 1979, Nov. 29, vol. 75, no. 48, pp. 2056-2058.

The author maintains that to preserve the essentials of nursing in a technological age, nursing education should first teach nurses how to help individuals with daily activities and with communication, before teaching the type of care necessitated by a particular disease. Nursing researchers can also help to preserve these essentials by producing data on the non-technical aspect of nursing administration, teaching and practice. Nurses are not usually trained to present data as a basis for recommending changes in basic care. Practising nurses are those who, in the last analysis, must preserve nursing essentials by helping patients and their families with health problems, assuming responsibility for making decisions, and by basing nursing care on a continuous process of evaluation. There should be one nurse who takes a dominant role in the care of each patient, thereby giving a better chance of recovery to the patient and greater job satisfaction to the nurse. As the role of the nurse expands to include more 'medical' activities, there is a need for clarification of authority among health workers.

178. RUMP, E. E. **Size of psychiatric hospitals and nurses' job satisfaction.** *Journal of Occupational Psychology*, Letchworth, 1979, Dec., vol. 52, no. 4, pp. 255-265.

Previous research has suggested that workers in large institutions may express lower job satisfaction than those in smaller units, but the latter may be seen as having some disadvantages. It was hypothesized that this would be so for nursing staff in three psychiatric hospitals in Adelaide, South Australia, with 681,487 and 133 beds respectively, and that the lower satisfaction within the largest hospital would be associated with problems of interpersonal communication. A 116-item questionnaire was distributed individually to all nursing staff at the hospitals, it was completed by 483 (78.5 per cent) of the 619 nurses. The responses confirmed the relationship between size and job satisfaction, and the relevance of facets involving communication. It was also confirmed that a small hospital may have particular problems, despite generally high morale.

179. THOMAS, M. C. **Study difficulties in undergraduate nursing students—a British perspective.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 4, pp. 299-305.

This paper discusses some of the issues which affect: (i) learning on undergraduate nursing courses; and (ii) administrators concerned with the selection of applicants. The nature of nursing requires a broad understanding of humanity combined with specific practical skills. Thus, the curriculum content and the required methods of study are very complex. The author reviews the literature on this aspect of undergraduate nursing study and finds that study difficulties are generally described in terms of poor study habits or attitudes. The author believes that the primary factor contributing to learning problems and level of achievement is the relationship between motivation, attitudes and personality. These factors will be influenced by expectations of success and the type of learning environment. The author discusses the effect of personality type and attitudes on the motivation to succeed. Organized study methods are generally a sign of an ability to move from basic to problem-solving principles. The author lists five variables which may provide a significant indication of a pupil's potential for success.

180. SHEAHAN, J. **An evaluation of a workshop for teachers of nursing on an individualized teaching and learning strategy.** *Journal of Advanced Nursing*, Oxford, 1979, Nov., vol. 4, no. 6, pp. 647-658.

In Great Britain nurse tutors and clinical teachers are required to attend a week-long course every five years. Previously known as refresher courses, they are now known as workshops. They now have a much sharper focus, usually on a single theme or topic, and allow more opportunity for the members to participate in group work and to produce material to be taken away from the course and tried out. This paper describes and evaluates one such workshop based on the use in nursing education of a system of individualized instruction, known as the Keller Plan. Though the study is not without its limitations, it does suggest, at the very least, that the Keller Plan may have a place in nursing education.

181. MELEIS, A. I. **The development of a conceptually based nursing curriculum: an international experiment.** *Journal of Advanced Nursing*, Oxford, 1979, Nov., vol. 4, no. 6, pp. 659-671.

Nursing programmes in the United States are based on a conceptual framework. This paper examines the practicability of developing a nursing programme in other nations using the esoteric, American-based idea of the necessity for a conceptually based curriculum. It describes the process used in selecting a conceptual framework for a new junior college programme in Kuwait. Although initially rejected by the faculty in Kuwait, the idea was reintroduced after much discussion. By the end of the second year, a definite framework had been developed into courses and content. Strategies used to develop and implement a conceptual framework included confrontation of faculty with the existing situation, lectures, seminars, workshops, and the identification of a critical review board.

182. MRAZEK, M. **Nursing information system.** *Dimensions in Health Service*, Ottawa, Ont., 1979, Nov., vol. 56, no. 11, pp. 12-14.

Through the joint efforts of its departments of research, development and planning, and nursing, Misericordia Hospital, Edmonton, Alta., has developed a nursing management model and a mechanism for monitoring the model, which is referred to as the nursing information system. The model has three major components: inputs (patient categorization programme and staff categorization scheme); process (a concurrent chart audit monitoring the nursing activities); and output (a concurrent patient and environment audit to monitor the nursing component of patient care). Surrounding these three components is the environment which can include, for example, the philosophy of the hospital and of nursing, the physical layout of an area, budget constraints, policies and legislation. The model is shown in diagrammatic form. The hospital has also developed standards of patient care and of nursing practice and has formed a quality assurance management information group.

183. TELFORD, W. A. **Determining nursing establishments.** *Health Services Manpower Review*, Keele, 1979, Nov., vol. 5, no. 4, pp. 11-17.

The determination and review of nursing establishments are key elements in a nurse manager's job. Currently, the guidance offered to nurse managers on this subject falls

into two main categories: broad guidelines, and the scientific or measurement approach. This paper discusses a system developed in Staffordshire that appears to offer a compromise and explicitly incorporates disciplined professional judgements. There are three main elements to the system: (i) ward/departmental staff make specific numerical assessments of staff required, but are also asked for written support for the numerical claims, adding one element of professional discipline to the situation; (ii) numerical assessments are transposed into grades of staff, and subsequently wholetime equivalents; and (iii) actual numbers and grades of staff are summarized and the appropriate allowances for trained and permanent staff members are built in. The method has been widely used in two areas in the West Midlands region. Some 597 situations have been assessed, and as yet only four of the assessments made by ward or departmental staff have been considered unrealistic. The system's many advantages are listed. The forms used are reproduced and examples of their use given.

184. DOWNS, F. S. and FLEMING, J. W., editors. **Issues in nursing research.** New York, Appleton-Century-Crofts, 1979, x, 191pp. £6.45. ISBN 0 83 854436 3.

During 1977/78 the United States spent five million dollars on research projects in nursing and one million on research fellowships in the field. A major chapter of this book deals with the implications of this large and expanding research effort for educational institutions. A number of chapters deal with somewhat general topics such as the conceptual framework of research and the past, present and future of nursing research. More specific chapters deal with the following: (i) organizational aspects of research, including the role of nursing organizations and sources of funds; (ii) clinical and theoretical research; and (iii) the protection of human subjects used for research. Each chapter includes numerous references to the literature and there is a subject index.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract Nos. 163, 241

ANCILLARY STAFF

See Abstract No. 216

ORGANIZATION AND ADMINISTRATION

See also Abstract No. 290

185. EICHHORN, S. Betriebswirtschaftliche Ansätze zu einer Theorie des Krankenhauses. **[Industrial management aspects of hospital studies.]** *Berichte in Zwangloser Folge*, Dusseldorf, 1979, Aug., pp. 1-19.

Education and research in the field of hospital management may be divided into the following sub areas: analysis of objectives; analysis of processes; organization; finance; and accounting. The current position in each of these sub-areas is assessed. The thesis is put forward that a 'theory of the health market' is needed to enable the conflict between public goals and management requirements in the public health sector to be analyzed and resolved. There are 39 references to the relevant German literature.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 161, 201, 211, 260, 272, 295

186. LAUFFER, E. Rationalisierung im Krankenhaus durch Schwachstellan-analysen. **[Rationalization in the hospital by means of 'weak point' analysis.]** *Krankenhaus-Umschau*, Kulmbach, 1979, Nov., vol. 48, no. 11, pp. 877-880, 883-886, 895.

A 'weak-point' is defined as a work process which does not fully achieve its purpose. A number of procedures for analyzing such weak points are described. They include: the 'intuitive procedure'; the analogue procedure; the check list procedure; and the form procedure. The results of this 'weak point' analysis have to be evaluated if the weak points are to be eliminated. For this purpose the basic principles of rationalization are to be borne in mind. The six stages of rationalization (setting the objectives, limiting the task, seeking the ideal solutions, collecting data and developing practical solutions, choosing the best solution, introducing the solution and checking results) are described individually. Details are also given of net planning techniques and use-value analysis. Finally the following hints for hospital administrators are put forward: plan your own work every day; work 'anti-cyclically' (e.g., use the telephone outside peak periods); telephone rather than dictate; meetings should never last longer than three hours with a 10-minute break each hour; and attention should be given to physical fitness.

APPOINTMENT SYSTEMS, WAITING LISTS

See Abstract No. 270

OFFICE MANAGEMENT AND METHODS

See Abstract No. 182

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 169, 196, 256, 259, 261, 263, 285, 287

187. Foss, O. P. EDB i sykehus—en hjelp eller en plage? **[Automatic data processing in the hospital—a blessing or curse?]** *Sykehuset*, Oslo, 1979, vol. 42, no. 8, pp. 601-607.

To get the best possible assistance from a computer, the potential buyer must have a very clear idea of what concrete tasks computers are required for; a large number of routine office and communications problems can be solved without the aid of computers, by an electronic caclulator or telephone, for example. Consultations with computer suppliers must be in non-technical language and based on the hospital's requirements and not the electronic firm's interests. A planned computer system must be adaptable to the current system of running the hospital—any systems demanding radically new procedures or routines must be rejected. Input work and rationalization must be planned in detail: it is unacceptable for certain staff categories to find their work load

drastically reduced at the expense of other categories. Introduction of electronic data processing at Ullevaal Hospital provided the following experience: (i) the introduction of computers took far longer than anticipated; (ii) computer systems broke down much more often and extensively than expected; (iii) instructions were too complicated; (iv) a computer engineer was not put on the permanent staff early enough.

188. WOIE, L. Bruk av EDB i sykehussektoren. Hvor står vi? Hva vil vi? **[What is our present and what will be our future position in regard to the use of automatic data processing in the hospital sector?]** *Sykehuset*, Oslo, 1979, vol. 42, no. 8, pp. 593-600.

Hospitals use automatic data processing for a wide range of general tasks, e.g. accounting; pay routines; statistical returns; pharmacy cost and consumption analyses; and laboratory routines. To be economical, all systems must be based on interactive on-line accessibility round the clock. The suppliers must now be prepared to offer tailor-made, ready-to-use systems at a fixed price. Microprocessors are of increasing use in the laboratories in association with automatic analyzers; in X-ray departments for computer tomography; in cardiology; and generally in the field of differential diagnosis. The future lies in the instant availability on a screen of all information on a patient, with facilities for immediate print-out of relevant items of text.

189. PALMER, H. Noen praktiske, administrative problemer ved innføring av EDB. Erfaringer fra Sentrallaboratoriet, Drammen sykehus. **[Some practical administrative problems in the introduction of automatic data processing—as experienced at the Drammen Hospital Central Laboratory.]** *Sykehuset*, Oslo, 1979, vol. 42, no. 8, pp. 612-615.

Drammen Hospital resolved to introduce a computer-based, rather than a computer-controlled, laboratory system: the computer must be an aid not a controlling factor Certain working routines have to be amended, which one would expect on transferring from a wholly manual system to a predominantly mechanical one. All this requires time as computer specialists and medical staff have to get to know each other, and old habits die hard. Representatives of all staff categories to be affected by the change must be involved in discussions right from the start. These representatives must have the time and authority to take back full information regarding the system and its consequences to administrative, medical, nursing, office and laboratory staff. Frequent representatives' meetings must be held, attended by outside experts with computer experience, and as many full staff meetings as are feasible should be held prior to commencement. There needs to be the prior establishment of a patient admissions group, a central laboratory group and a clinical departments group, to learn operation fault-finding and fault-correction routines. A permanent computer engineer post must be established and filled prior to purchase of equipment, and a maintenance clause must be written into the purchasing contract.

190. CARLSTRÖM, A. and others. Smådatorer i sjukvården—ett praktikfall. **[Use of minicomputers in the hospital—a practical illustration.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 11, pp. 673-675, 677-678, 681.

The protein section of the clinical chemical laboratory at Danderyd Hospital has installed a minicomputer to free qualified staff from routine tasks. Serum protein

analyses comprise a standard diagnostic routine, hitherto carried out as a three stage manual process. The process was analyzed in consultation with a Stockholm firm of computer consultants. A Howlett-Packard table computer, with graphical screen, digitalization table and a printer, was installed five metres from the laboratory analysis equipment. On receipt of a protein analysis request slip from a ward, a blood sample is taken and analyzed for several types of protein. The results are printed out, with a statement of diagnoses with which they are compatible. No special training is required to operate the system: the language is extended BASIC. The protein section's system is part of a whole-laboratory system. The article is illustrated with photographs of the electrophoretic separation of serum proteins and computer protein analyses, a computer analysis result compared with the former manual report, and a general photograph of the equipment in use.

191. KATAJA, M. and TERVO-PELLIKKA, R. Sairaala-atk: n kehitysnäkymistä. **[Future prospects of automatic data processing in hospitals.]** *Sairaala*, Helsinki, 1979, vol. 42, nos. 6/7, pp. 223-225.

Hospitals are very conservative in their application of computer technology. The computer however, is now so highly developed that it can be operated by the non-specialist, and the number of terminals in hospitals is increasing. Computers can be used in: (i) administration (statistical and case report programmes); (ii) staff administration (salaries, appointments, shift work rotas); (iii) therapeutic activities such as appointments for treatment and drug information; and (iv) administration of supplies and services such as inventories, purchasing and maintenance. Automatic data processing services will in future be applied as packages constructed by a firm for pilot projects in one hospital and then sold in quantity. Positive developments will depend on whether hospital staff take part in systems planning and whether they can co-operate with the computer operators. The computer will never be particularly visible in the hospital, but it is hoped that one of its benefits will be to give staff more time for their patients.

192. RABBIE, H. M. and KORTE, R. L. **A computer system for biomedical equipment maintenance reporting.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, July/Sept., vol. 4, no. 3, pp. 237-241.

A computer system is described which collects the necessary data to provide efficient maintenance and repair of biomedical equipment. The system generates a file of reports which contain: (i) a record of maintenance; (ii) details of the parts used in repair; and (iii) the total cost of the repair. There is a parts file which includes a description and unit price for each spare part used. A file for each piece of equipment is indexed by a maintenance number and includes: (i) manufacturer's model and serial number; (ii) location; (iii) preventive maintenance schedule; and (iv) a list of maintenance report numbers. The system is implemented on a time-sharing mini-computer using the MUMPS operating system and language. Currently reports are being filed at a rate of about 80 per month.

193. THEIMER, P. **Computer development at Mount Sinai Hospital.** *Dimensions in Health Service*, Ottawa, Ont., 1979, Nov., vol. 56, no. 11, pp. 26, 28.

The department of systems and computer services at Mount Sinai Hospital, Toronto,

was established late in 1970, with the mandate to streamline the hospital's systems in preparation for moving into a new, larger building. Early projects were systems for controlling capital equipment acquisitions, payroll, patient indices and the central patient index. A hospital computer committee was formed to develop an overall computer policy, approve projects, and recommend computer acquisitions. It was decided to delay the purchase of a computer until it was absolutely necessary to have one in-house for mandatory on-line applications. In the meantime a 'payload' of acquisitions was built up which would eventually be used to justify the cost of the first minicomputer of the projected network. Objectives and strategy were established and now the purchase of the first in-house computer can be justified.

LIBRARIES

194. FOGELHOLM, R. Keskussairaaloiden lääketieteellinen ammattikirjallisuus ja kirjasto. **[Medical professional literature and libraries of Central Hospitals.]** *Sairaala*, Helsinki, 1979, vol. 42, nos. 6/7, pp. 228-229.

Amounts of money spent on professional literature in the hospital vary widely. In general, these sums are reasonable, but more attention must be paid to the rising price of scientific publications. Every central hospital should have a library, not too far from the wards, so that it can be used at any time, even during staff working hours. The library should be large enough to store the periodicals of the last 10 to 15 years, each ward or department must decide which periodicals are to be sent to the library. The library should have a photocopier for providing the necessary photocopies at hospital expense. Every central hospital should employ a librarian, either part-time (at least 20 hours a week) or full-time, depending on the size of the library. Periodicals and books can then be kept in proper order, book loans can be accounted for and recorded, and no periodicals and books will be lost, as is so common now. The librarian will expedite outside loans and photocopies and, if this is operated properly, the number of subscriptions can be reduced because rarely read periodicals can be dispensed with. The librarian can also find books or references to the professional literature manually or with the aid of a computer, and both 'Current Contents' and 'Index Medicus' should be part of the standard equipment of the library. A satisfactorily working medical library in a central hospital is an aid to better treatment for patients.

INFORMATION SYSTEMS

See also Abstract No. 169

195. SHANNON, R. H., editor. **Hospital information systems: an international perspective on problems and prospects.** Amsterdam, Oxford, North-Holland, 1979, xv, 405pp. £30.00. ISBN 0 444 85341 3.

This volume contains the papers and debates from a conference organized by the International Federation of Information Processing Societies. Hospital information systems are taken here to be data bases derived from or related to hospitals; thus there are sections on medical records, accounting procedures, and statistical information. Amongst the systems described are those in the North East Thames Regional Health Authority and a North Staffordshire hospital.

MEDICAL RECORDS

196. KENNELLY, B. M. and VADER, C. G. **A computerized report form for the cardiac intensive care unit.** *Intensive Care Medicine*, Heidelberg, 1980, vol. 6, no. 1, pp. 9-17.

A report form is described which has been designed to cover the likely diagnoses of patients admitted to a cardiac intensive care unit in the Groote Schuur Hospital, Cape Town, South Africa. The information entered can readily be stored for computer retrieval and includes biographical and clinical data, information relating to medications, procedures, complications, arrhythmias and electrocardiographic and serum enzyme values with special reference to patients with acute myocardial infarction. The data is entered by the medical, nursing and secretarial staff prior to encoding and computer storage. The report form is described.

HOSPITAL STATISTICS

See Abstract No. 246

LEGAL AND ETHICAL ASPECTS

See also Abstract No. 236

197. DEPARTMENT OF HEALTH AND SOCIAL SECURITY, SCOTTISH HOME AND HEALTH DEPARTMENT and NORTHERN IRELAND DEPARTMENT OF HEALTH AND SOCIAL SERVICES. **The removal of cadaveric organs for transplantation: a code of practice drawn up by a working party on behalf of the Health Departments of Great Britain and Northern Ireland.** (Chairman: Lord Smith of Marlow). London, [DHSS], 1979, 36pp.

The present supply of cadaveric kidneys for transplantation in Britain is only about half that necessary to meet the demand, and there is also a shortage of eyes for corneal graft. The shortfall may be partly a result of uncertainty about what the procedures are, and this booklet gives a broad indication of the practices to be followed, including references to legislation and official circulars. A list of transplant centres is given and a sample form, to be completed before transplantation, is shown.

198. GOLDMAN, S. A. and ARBUTHNOT, J. **Teaching medical ethics: the cognitive-developmental approach.** *Journal of Medical Ethics*, Edinburgh, 1979, Dec., vol. 5, no. 4, pp. 170-181.

At present, medical education leaves many students inadequately equipped to handle ethical problems in practice. A crowded curriculum makes it difficult to devote extra teaching time to this subject. The first part of this paper points to the need for ethical and humanitarian education in medical schools. The second part describes the structure and empirically demonstrated effectiveness of a course involving the use of other techniques, it is based on the theory of the development of moral reasoning pioneered by Lawrence Kohlberg. The format of the course was a discussion seminar led by a

trained moral educator, with pre- and post-course evaluation of the moral orientations of the students. Of 12 students who completed the course and evaluations, 10 showed positive movement. This is better than usually observed in moral education programmes of this type and duration.

199. BARBER, B. and others. **Research on human subjects: problems of social control in medical experimentation.** Revised edition. New Brunswick, N.J., Transaction Books, 1979, xx, 263pp. £3.55. ISBN 0 87 855649 4.

During this century a large number of new drugs and groups of drugs have been introduced, all involving the use of human subjects for bio-medical research; without this experimentation there would be few drugs except the old-established narcotics. The dilemma of experimental risk and potential benefit is considered at length and there are chapters on the pressures of competition and the means of social control. There is also a chapter on research design and methodology, and a number of case studies are presented. The final chapter gives some suggestions for policy changes and reform.

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 162, 166, 248, 258, 274, 291

200. KALIMO, E. **Planning and evaluation of national health insurance in Finland.** (M:32/1979) Helsinki, Research Institute for Social Security of the Social Insurance Institution, 1979, [iv], 18pp. ISBN 951 669 076 9.

In Finland public health care is paid for from national health insurance, plus central and local government funds. Accident insurance companies provide occupational and traffic accident cover under compulsory accident insurance legislation. Direct charges to patients amount to six per cent of total hospital expenditure and there is a small amount of private health insurance. Within the national health insurance scheme there are three types: (i) medical insurance; (ii) income security insurance (to cover loss of earnings); and (iii) maternity insurance. The author identifies some scope for improvements in planning and for integration of national health insurance with the other elements in health service provision.

201. **Cost containment begins at the top.** *Trustee*, Chicago, Ill., 1979, Nov., vol. 32, no. 11, pp. 25-28.

This report, arising from suggestions made at the Second American Hospital Association's Conference on Hospital Governance, discusses ways in which a hospital board may exercise its responsibility for keeping costs down. Cost containment must be a policy decision made by the governing board. The responsibility for its success should be assigned to a committee of the board which includes members of the administrative and medical staff. The board should set an example by effectively structuring its own organization. Board members should be informed about developments affecting their hospitals and should take part in activities of local hospital

associations. Under the leadership of the hospital's Chief Executive Officer, the board should provide the necessary motivation to involve every member of staff in the cost containment. In addition, trustees should give information about the cost containment programme to the hospital's state and federal officials and to local businesses.

202. NISIO, L. Il consumo dei farmaci nella spesa ospedaliera. **[Drug consumption in hospital costs.]** *Tecnica y Metodologia Economale*, Firenze, 1979, Sept./Oct., vol. 18, no. 5, pp. 304, 307-309.

The author examines ways and means of controlling soaring drug costs in Italian hospitals. He recommends the use of unit dose formulations, further training for hospital pharmacists, and the provision of a drug information service. His main recommendation, however, is that each region should have a hospital drug manual, to be prepared by a committee of experts who will consider criteria for drafting the manual, criteria for classifying drugs, the degree of restriction to be imposed, the number of drugs to be included, and the type of drug to be included or excluded. Preparation of the manual will provide an opportunity for a critical re-examination and up-dating of therapeutic practice in the hospital, and drugs which are of doubtful value or unnecessarily costly will be excluded.

203. BAYS, C. W. **Cost comparisons of forprofit and nonprofit hospitals.** *Social Science and Medicine*, Oxford, 1979, Dec., vol. 13C, no. 4, pp. 219-225.

Hospitals differ from other economic organizations in several important aspects; (i) they are predominantly non-profit; (ii) widespread insurance cover substantially alters the economic incentives of both users and providers, and (iii) physicians are primarily responsible for decisions on resource allocation but only indirectly accountable for the cost of those decisions. This paper discusses these factors and tests some of the implications by comparing the cost performance of a sample of for-profit and non-profit hospitals in California. For-profit hospitals as a group appear to be significantly less costly than non-profit hospitals after accounting for differences in case mix, but this result only emerges after adjusting for the possibility that for-profit hospitals may treat certain types of cases more intensively than do non-profit hospitals. Moreover, chain for-profit hospitals have case loads which are not significantly different from those of non-profit hospitals, but appear to be less costly than both non-profit and non-chain for-profit hospitals. Reasons for this finding are discussed and further research on chain for-profit hospitals is recommended.

204. FISCHER, J.-P. Le budget global au Québec. **[Global budgeting in Quebec.]** *Revue Hospitalière*, Paris, 1979, Nov., vol. 43, no. 325, pp. 931-942.

Each hospital establishment in Quebec receives a global budget, i.e. a fixed sum annually from the provincial Government. This covers running costs but not financial charges, or equipment or construction costs. The system was meant to provide a greater measure of decentralization and administrative autonomy for the individual hospital, but, in the author's view it has led to greater rigidity, more centralization, and a run-down in the hospital's services, which will soon grind to a halt as the hospitals' deficits continue to rise. The author examines the system in detail and lists what is covered by the global budget and what is not. He does not recommend the introduction of this system of hospital financing in France.

205. DELBANCO, T. L., MEYERS, K. C. and SEGAL, E. A. **Paying the physician's fee: Blue Shield and the reasonable charge.** *New England Journal of Medicine*, Boston, Mass., 1979, Dec. 13, vol. 301, no. 24, pp. 1314-1320.

The evolution of Blue Shield plans for paying physician's fees in the United States is described. Blue Shield plans serve over 70 million subscribers and nearly all have participating physician agreements. As a result of the reasonable charge formulas used by Medicare, Blue Shield now offers contracts based on the payment of 'usual, customary and reasonable' (UCR) charges. In a three-year period in the Washington, D.C., area, Blue Shield UCR agreements permitted so-called customary fees for selected surgical procedures to rise by 29 to 75 per cent. Throughout the country there is a wide variation in the operation of Blue Shield contracts owing partly to state regulations, but also perhaps to the fact that 31 of the 69 Blue Shield plans are controlled by the physicians themselves. The authors consider that there should be more public debate on the monitoring and regulation of Blue Shield schemes.

206. EICHHORN, S. Kostensteigerung, Kostenbegrenzung und Qualitätssicherung im Bereich der Krankenhausversorgung. **[Cost increases, cost limitation and the safeguarding of quality in hospital services.]** *Krankenhaus*, Stuttgart, 1979, Feb., supplement; pp. 9-17.

The worldwide cost expansion in hospital services is a long-term trend and there is no prospect of reducing these costs as measured by the gross national product. But this does not mean that every effort should not be made to reduce the rate of increase. Society must decide what it is prepared to spend on hospital and health services. Supply and demand should be limited to what is medically necessary. Administrators must be clear about the relationship between cost limits and loss of efficiency. Rationalization of services can also lead to cost reduction: in this area international exchange of views and experiences on the social and economic results of developments in medical technology is urgently needed. State intervention has been shown to have little or no effect on cost limitation. What is important is that hospital managements and staff as well as the public should be cost conscious. There is a danger that measures aimed at cost reduction at any price will affect the quality of services.

207. MCCARTHY, J. T., HONEYFIELD, P. R. and BUTTERFIELD, L. J. **Who pays the bill for neonatal intensive care?** *Journal of Pediatrics*, St. Louis, Mo., 1979, Nov., vol. 95, no. 5, part 1, pp. 755-762.

The Newborn Emergency Service at The Children's Hospital, Denver, Colorado, transported 174 infants to the hospital's Newborn Center during four months of 1976. The transport charge related to the distance between the referring hospital and the centre and was charged directly to the parents. Two years after the last infant in the study had been discharged, 150 accounts had been paid in full and 24 were pending. Eighty-five per cent were paid by insurance, four per cent by the families themselves, and the hospital wrote off 11 per cent of the total hospital charges. Eighty-four per cent of the infants survived and 16 per cent died, the mean charge per day being $338 for survivors and for non-survivors, $607. The study showed that, while transport to neonatal intensive care is expensive, the outcome in terms of survival is more cost effective than adult intensive care.

208. GLASER, W. A. **Paying the hospital: foreign lessons for the United States (notes for a research project).** (Pre-print Series No. 17, 78:5:10) New York, Columbia University, Center for the Social Sciences, 1978, [iii], 37pp.

Hospital costs in the United States have increased quite dramatically in recent years so attempts are being made to learn from foreign experience. The national health insurance schemes of Canada, West Germany, Switzerland, the Netherlands and France are considered. Holland is unitary and has one national commission to regulate all hospitals. France is unitary but decentralizes administration of rates to countries whilst imposing national guidelines. Although these countries often have more central control than the United States they all have a mix of public and private ownership. By way of contrast the author will also examine Great Britain, with direct government control of expenditure. In this paper he outlines the scope of his proposed research study.

209. AMERICAN HOSPITAL ASSOCIATION. **Estimated useful lives of depreciable hospital assets.** Revised edition. Chicago, Ill., American Hospital Association, 1978, iii, 7pp. $3.00. ISBN 0 87258 247 7.

This booklet is a revision of an item first published in 1973. Current information is given on the useful lives of selected items of hospital equipment and other depreciable assets. Estimated lifetimes vary from pickup van (four years) to masonry (25 years). Three factors are identified as contributing to depreciation: (i) physical deterioration; (ii) change of requirements by management; and (iii) technical obsolescence. This information is essential to the proper calculation of depreciation allowances, and is useful in insurance, planning, and appraisal.

210. MARKEL, G. A. **Per-case reimbursement for medical services.** (DHEW Publication No. (PHS) 79-3230) Hyattsville, Md., National Center for Health Services Research, 1978, vi, 31pp.

The report describes an experimental programme designed to test and evaluate the concept of reimbursing doctors for in-hospital medical treatment on a care basis, instead of the traditional fee-for-service approach. Reimbursement amounts were based on patients' discharge diagnoses using a schedule of diagnosis categories based on ICDA classifications. Primary research objectives were to test the effects of per-case reimbursement on in-patient hospital utilization and to determine any associated changes in medical care costs. Comparisons with cross-sectional and longitudinal control groups indicate some small favourable changes in average length-of-stay, with corresponding potential cost savings.

211. JANZER, H. and SCHWAB, G. Kosten-Leistungs-Rechnung im Krankenhaus—ihre Aufgaben und die Probleme einer zweckgerechten Ausgestaltung. **[Cost-benefit accounting in the hospital: its objectives and the problems in its functional organization.]** *Krankenhaus-Umschau*, Kulmbach, 1979, Nov., vol. 48, no. 11, pp. 896-898, 901-903.

Recent West German legislation requires hospitals to introduce cost accounting and cost-benefit analysis as from 1 January 1980. This paper aims at summarizing the tasks associated with cost-benefit accounting. It also discusses critically the possibilities and

opportunities which an effective accounting system offers for the planning and guidance of both the individual hospital and the whole of the health services. The paper divides into three sections: the statutory obligation to carry out cost-benefit accounting; the function and tasks of cost-benefit accounting; and a sketch of a cost-benefit accounting system which meets the above requirements.

SUPPLIES AND STORES

PURCHASING

See also Abstract No. 167

212. KIMMEL, H. Zentralisation der Beschaffung am Beispiel einer Klinikeinkaufsgenossenschaft. **[Central purchasing: an example of a hospital purchasing association.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, pp. 438-442.

A joint purchasing organization for private hospitals in the Munich area, which was set up in 1970, is described. Originally 31 hospitals with a total of 2,000 beds took part: by 1978 these figures had grown to 330 and 45,000 respectively. In 1970 there were 12 different suppliers; in 1978 there were 230. In 1977 the turnover for medical and pharmaceutical suppliers was DM 27 million and for food suppliers DM 16 million. The system has proved entirely successful and very favourable prices are negotiated.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

See Abstract No. 214

DIETETICS IN THE HOSPITAL

See also Abstract No. 190

213. SETHI, G. S. **Development of a district dietetic service.** *Hospital and Health Services Review*, London, 1979, Nov., vol. 75, no. 11, pp. 405-407.

Following surveys of dietetic services at Whittington Hospital in 1971 and in the Islington Health District generally in 1974, the district management team decided in April 1975 to establish a dietetic service and recommended the appointment of a district dietitian and an establishment of six dietitians. The district dietitian was appointed and the service finally started in 1976. Hospital services provided include: attendance of dietitians at out-patient clinics; slimming groups; diabetic groups; parentcraft classes; and visits to in-patients as requested by medical staff. Community services include: sessions in general practices, health centres and schools; in-service training courses for the health caring professions; domiciliary visits; and advice to social services

and health education officers. The dietitians broadcast weekly for 15 minutes on the hospitals' broadcasting systems and it is hoped to make use of other media for providing nutritional advice to the community.

214. HALL, R. H. **The hospital food scandal.** *Ecologist*, Wadebridge, 1979, Sept./Oct., vol. 9, no. 6, pp. 184-187.

The author severely criticizes modern hospital food in the United States which is often prepared miles from the hospital. The manipulation of natural food, whether by freezing, re-heating or canning, causes loss in nutritional quality, particularly the destruction of vitamins and minerals. The microwave oven offers no nutritional advantage, but only convenience to the catering staff. Food science literature gives little information on the nutritional value of processed foods and yet serving poor meals in order to cut costs can be disastrous to the welfare of the patients. At Meadowbrooks Hospital, Los Angeles, catering staff have been trained to serve only natural food and their interest in the patients' welfare has increased substantially. It is important during illness for the body's recuperative powers to be helped by good nutrition.

KITCHENS

215. MÖNIKES, H. Garautomaten nur in Kombination mit traditionellen Küchengeräten. **[Automatic pressure cookers are to be used only in combination with traditional cooking equipment.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, pp. 447-448.

Details are given of automatic pressure cooker installations suitable for hospital kitchens. These are eminently suited for cooking certain types of meals. It is, however, stressed that they should be used only in conjunction with the more traditional cooking methods which are still necessary.

HYGIENE IN THE HOSPITAL KITCHEN

216. Personalhygiene in der Küche. **[Hygiene for kitchen staff.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, p. 449.

Kitchen staff should have regular (perhaps six monthly) training in hygiene. Hands must be washed (using soap dispensers and disposable towels) before work begins, when soiled and after using the toilet. Protective clothing must be worn, the hair covered and face masks worn when suffering from infections of the upper respiratory tract. Toilets should be provided solely for kitchen staff and their ventilation should be completely separate from that of the kitchen. Toilets should be thoroughly cleaned and disinfected daily. Kitchens and stores must not be entered by other than kitchen staff.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

See Abstract Nos. 170, 217

HOSPITAL LINEN AND TEXTILES

217. KVALHEIM, V. Krav til transport og behandling av tekstiler for helseinstitusjoner. **[Standards for the transport and laundering of linen for health institutions.]** *Sykehuset*, Oslo, 1979, vol. 42, no. 8, pp. 615-627.

It is the responsibility of the laundry to ensure that all wards and departments in a hospital have enough clean linen at all times; the laundry owns all linen and is responsible for purchasing and maintenance. A co-ordination committee must be set up, consisting of a microbiologist, users from various departments in the hospital, and laundry representatives, to process complaints and suggestions for improvement. The committee's first task is to list all items of linen in the hospital, and drastically reduce, by rationalization and standardization, the range in use. Hygiene standards must be laid down and adhered to at all three sensitive points in the system: at the laundry, in the hospital and during transport. Clean and soiled linen must be packed into properly closed plastic bags for transport to the laundry; no sorting of any kind should be allowed on hospital premises. At the laundry; there must be a positive air pressure at the "clean" side of the premises and negative on the "soiled" side, so that airflow is always in the correct direction, nor must staff from different sides (distinguished by uniform colour) come into contact with the other. A staff rota should ensure that no operative is in any one place for more than two hours at a time. The sorted linen should be laundered in accordance with requirements, left to air for 24 hours, and returned to the hospital in a disinfected van for sterile storage until required. There must be public health control of the laundry's standards of ventilation, construction, cleanliness, machine maintenance, personal hygiene, lockers, sanitation, canteen conditions and bacteriological state.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

218. GUIZZI, G. Mezzi tecnici e meccanici per una perfetta pulizia negli ospedali. **[Technical and mechanical methods for thorough cleaning of hospitals.]** *Tecnica Ospedaliera*, Milano, 1979, Nov., vol. 9, no. 11, pp. 38-42.

Efficient cleaning in the hospital requires a thorough knowledge of the characteristics of the materials and surfaces to be treated. Modern equipment cannot totally replace one means of preventive cleaning—the door mat, whilst longhandled mops for cobwebs and windows, sponge mops, and the old-fashioned floor mop and bucket are still useful. The author examines various types of vacuum cleaners, floor scrubbers, floor driers, and floor polishers, and presents nine photographs of modern equipment, including a floor scrubber-cum-drier; impregnated cloths; and a collapsible wheeled trolley which holds a standard plastic sack for the use of the cleaning team.

219. ERDAL, S. and VANGDAL, M. Undersøkelse av bakterieforekomst i svamper som brukes til rengjøring av håndvasker på pasientstuer. **[Study of bacterial occurrence in sponges used for cleaning ward washbasins.]** *Sykehuset*, Oslo, 1979, vol. 42, no. 6, pp. 469-473.

Foam rubber sponges are a possible reservoir of bacterial infection. Nine sponges

of the type with a scouring surface were taken at random from each of 10 wards in the Medical and Obstetrics Departments of Aker Hospital. The sponges were used for the daily cleaning of ward washbasins. They were usually rinsed out in hot water, wrung as dry as possible, and put by the sink or hung on the soap dispenser or a hook. In one ward they were de-contaminated once a week. Samples were cut from the sponges and taken to the laboratory; bacteria grew on all 90 samples, pathogenic bacteria being found on 65 (72 per cent). Ten species of bacteria were isolated, including *E. coli Klebsiella*, and 17 sponges contained yellow staphylococci. Sponges disinfected once a week were no less infective than those merely rinsed under the hot tap. Despite the good sink-cleaning properties of these sponges, it is recommended that basins should be cleaned by (i) disposable cloths, which must be thrown out afterwards; (ii) cloths, boiled daily after use, or (iii) brushes, which should be boiled or disinfected daily.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

See also Abstract Nos. 268, 281

220. GRÖSCHEL, D., editor. **Hospital-associated infections in the general hospital population and specific measures of control.** New York, Marcel Dekker, 1979, xiii, 188pp. £17.90. (Handbook on Hospital-Associated Infections Vol. 3). ISBN 0 8247 6815 9

Nosocomial infections are common complications of diagnostic and therapeutic medical and surgical procedures in the modern hospital setting. Their recognition often requires close co-operation between clinicians, radiologists, and laboratory scientists and a thorough knowledge of patho-physiology and epidemiology. Hospital infections are here dealt with from a clinical point of view, according to the system affected; other books in the series treat other aspects. In this volume a useful pattern is followed in each chapter with: (i) a general introduction; (ii) sections on specific problems and on control measures; and (iii) a summary and a list of references.

PREVENTION AND CONTROL

See also Abstract Nos. 217, 220, 286

221. KAISER, D. Möglichkeiten und erfahrungen beim Einsatz einer Hygienefachkraft. **[Appointing a hygiene specialist: possibilities and experiences.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, pp. 449-452.

The function and duties of the hospital hygiene specialist described in this paper are similar to those of the infection control nurse in Anglo-American countries. The specialist should have good professional nurse training and many years of bedside experience. The main duties of the post are as follows: collaboration with hospital hygienists; recording hospital infections based on regular ward visiting; maintaining infection records; helping with epidemiological studies; supervision of nursing techniques and disinfection and sterilization measures; training of staff in the

recognition, prevention and control of hospital infections; and collaborating with staff in promoting hospital hygiene. Details are given of how the responsibilities of the hygiene specialist work out in practice.

222. STAIB, F. Zur Bekämpfung von *Aspergillus fumigatus*—Infektionen während des Klinikaufenthalts. **[The control of *Aspergillus fumigatus* infection in hospitals.]** *Öffentliche Gesundheitswesen*, Stuttgart, 1979, Nov., vol. 41, no. 11, pp. 777-781.

It has been shown that *Aspergillus fumigatus* can be transmitted by infected persons and can be present in the soil surrounding pot plants. While *A. fumigatus* is not a risk for healthy persons it presents a health hazard in cases of respiratory tract infections, blood diseases and transplant surgery. In these cases pot plants should not be permitted in patient areas and there should be surveillance of aspergillosis patients, as well as routine culture and serological control of patients at risk from such infections.

223. NYSTRÖM, B. Det sjukhushygieniska arbetslaget. **[The hospital infection control team.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 11, pp. 655, 658.

The hospital infection control team must consist of one or more doctors, nurses and/or laboratory technicians, and in some hospitals the team includes a hospital hygiene technician or microbiologist. The aim of hospital infection control is to prevent infection in the hospital but does not include subjects such as radiation protection and ergonomics. The team is the active arm of the hospital hygiene committee, responsible for: (i) advising all categories of staff on hygiene matters; (ii) epidemiological investigation in the event of infection; (iii) development of standardized descriptions of hospital routines with implications for hygiene (e.g. catheterization); (iv) running hygiene checks on stores and materials; (v) instruction; and (vi) registration of cases of hospital infection. Thus practical hospital infection control concerns the entire staff, administrative as well as medical and nursing, not just the official team. The role of the team is to advise and support; the team must be picked from people with a sound practical knowledge of hospital care.

224. NEWSOM, S. W. B. **Decontamination on the wards.** *Sterile World*, Sutton-in-Ashfield, 1979, June, vol. 1, no. 3, pp. 14, 15.

A brief review is presented of the problems of decontamination in the ward. Aspects considered include: bacterial species; rules for decontamination; pseudo-hygiene and hygiene failure; washing hands and apparatus; and disinfectants. Four references are included.

225. BERGAMI, E. and ZULLO, A. Attualità in tema di stazione di disinfezione. **[Advances in disinfection installations.]** *Tecnica Ospedaliera*, Milano, 1979, Nov., vol. 9, no. 11, pp. 64-74.

The author examines the value and functions of a hospital disinfection centre (DC). He recommends that all soiled bed linen be placed in a plastic sack at the bedside, to avoid any later sorting which could spread infection. 'High risk' bedlinen should be placed in a special sack, which then goes straight to the DC. Mattress covers should be changed and disinfected when the patient leaves; mattresses used by patients suffering from 'high risk' diseases should be placed in a plastic sack and sent to the DC.

The DC itself should have separate sectors for contaminated and decontaminated material, a filter zone for staff, a horizontal autoclave, a room or cupboard for formalin disinfection of mattresses and pillows, and metal drums in which woven material can be soaked in disinfectant solution. The author goes on to describe the reconstruction in an underground vault dating from 1500 of the DC in the Santo Spirito Hospital in Rome, which was destroyed by fire in 1975. His description is supported by five photographs of the new centre, three lay-out diagrams, and four tables of information.

226. KATZ, E. **The isolation of the infection control officer.** *Dimensions in Health Service*, Ottawa, Ont., 1979, Dec., vol. 56, no. 12, pp. 18-20, 22.

The infection control officer works alone in a hospital and is consequently subjected to conflicts and frustration as a result of lack of support from other health care professionals. One form of support is the Canadian Hospital Infection Control Association (CHICA). At a one day seminar for administrators the Canadian Council on Hospital Accreditation's approach to infection control was discussed. The role of the infection control committee and the duties of each member were outlined, and the presence of a good microbiology laboratory in a hospital advocated. The work of the infection control committee at Oshawa General Hospital was outlined. Other topics discussed included: infection control officers; infection control issues; and infection control education.

HYGIENE IN THE OPERATING THEATRE

See Abstract No. 255

PERSONAL HYGIENE OF THE PATIENT

See Abstract No. 219

DISPOSAL OF WASTE

227. TOWNEND, W. K. **The disposal of hospital waste.** *Sterile World*, Sutton-in-Ashfield, 1979, June, vol. 1, no. 3, pp. 10-12.

The problem of the disposal of hospital waste is discussed. There appears to be little risk in the landfill waste disposal system with the exception of some toxic, dangerous or offensive wastes. Hospital paper waste is considered in three categories: household waste; toxic, dangerous or offensive wastes; and notifiable waste. Methods for local storage and transportation are discussed. On-site transfer and treatment methods including incineration are outlined. The role of the Working Group on Medical Wastes chaired jointly by the Department of the Environment and the Department of Health and Social Security is outlined.

228. KLIEMCHEN, H. Stations-Abwassersonderanlagen für Desinfektion, Dekontaminierung und Neutralisierung. **[Special ward waste disposal installations for disinfection, decontamination and neutralization.]** *Krankenhaus*, Stuttgart, 1979, Dec., vol. 71, no. 12, pp. 456-459.

The aim of this paper is to reduce the costs for disinfecting, decontaminating and

neutralizing hospital sewage and waste materials, this involves limiting these procedures to sewage and waste which actually presents a health hazard and a risk of spreading infection. Ward installations for such processes are described under the headings of thermal disinfection, chemical disinfection, and the decontamination of radioactive sewage and waste materials. Fully automatic neutralization equipment for laboratories is also discussed.

SAFETY MEASURES

ELECTRICAL ACCIDENTS

229. GERHARD, G. C., CHALIFOUX, H. D. and MELVIN, D. W. **A shocking experience: Ohm's Law and the nurse.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, July/Sept., vol. 4, no. 3, pp. 231-236.

The Clinical Engineering Center of the University of New Hampshire has developed a seminar on electrical safety for nurses. The one-day course provides an understanding of basic circuit theory, grounding problems, wiring systems and electrical safety. Examples of hazards are drawn from everyday clinical situations and a number of demonstrations involving electronic equipment for use with patients are presented. The final part of the course gives the participants the opportunity to ask questions of a panel of hospital and clinical engineers, and technicians. The seminar has made nurses more aware of the function of the clinical engineer, as well as providing better understanding of the problems of electrical safety.

230. CANADA. **Department of National Health and Welfare. Health Facilities Design Division. Proceedings: seminar on electrical safety in hospitals [November 17 and 18, 1977].** [Ottawa], Department of National Health and Welfare, [1978], viii, 154pp.

The 11 papers comprising the seminar on Electrical Safety in Hospitals consider all aspects of patient care and medical technology. The papers cover: the impact of the electrical technology on medicine and health care; a review of electrical hazards in hospitals; the hospital and present Canadian standards; current trends in bio-engineering standards; safety in the design of electrical systems for hospitals; the physician's need for medical instrumentation; hazards inherent in the use of electro-medical equipment; testing for electrical safety; effective equipment control schemes; and legal aspects of patient safety. A list of the registrations for the Electrical Safety Seminar is included.

FIRES AND FIRE PREVENTION

231. EDER, J. F. **Polyvinyl Chloride—its risk potential in the hospital.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, July/Sept., vol. 4, no. 3, pp. 265-268.

Polyvinyl chloride (PVC) releases lethal hydrogen chloride (HCl) gas when thermally degraded, and this fact constitutes a serious risk within the hospital. Inhalation of HCl, either as a gas or combined with water vapour, is an irritant to mucous membranes,

especially the eyes and respiratory tract. Thermal degradation of 25 feet of PVC wire yields 1.4 mg. of HCl/L, which is 70 times greater than the recommended maximum concentration. The high degree of risk from PVC, especially in areas of high humidity such as operating theatres, demonstrates the need for more effective control of its use. Most important, research is needed to develop an economical and safe substitute.

232. WOOLLISCROFT, M. **Hospital fire precautions: towards cost effective design.** *Hospital Engineering*, London, 1979, Dec., vol. 33, no. 10, pp. 20-24.

Increasing demands for more safety measures have to be reconciled with current economic constraints; cost-effectiveness is as essential in fire precautions as elsewhere. Examination of hospital fire statistics shows that the hospital fire problem in the United Kingdom is primarily one of the multiple fatality fire in a long-stay ward. A decision tree model is applied to such a fire. Four fire alarm systems are examined in relation to this analysis: time division multiplexing fire alarm system; STAMP smoke sampling system; Dorgard pneumatic door system; and Harwell smoke detector system.

233. WATERMAN, T. E. **Use of automatic door closers improves fire safety.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, July/Sept., vol. 4, no. 3, pp. 260-264.

A series of 16 sophisticated fire tests were carried out under conditions resembling those of typical hospital or nursing home fires. The chief purpose was to establish which types of safety systems are most helpful in achieving successful rescue. The tests, which are described, showed that sprinklers do not reduce the amount of smoke in the room where the fire starts: in fact, their activation discharges a large volume of smoke which is then transmitted to adjoining areas through open doors. However, automatic doors, activated by a smoke detector, prevent the spread of smoke and toxic gases, giving staff the chance to evacuate patients during the first ten minutes of the fire. When automatic door closers were used, the corridor air temperature in the proximity of the fire did not exceed 80°F at a height of five feet. The functions of automatic doors and sprinklers are complementary, but quite different.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 199, 269

234. KELLY, N. R. and COHEN, F. L. **Smoking policies in U.S. hospitals: current status.** *Preventive Medicine*, New York, 1979, Sept., vol. 8, no. 5, pp. 557-561.

Questionnaires asking for information about smoking policies were sent to the administrative heads of 360 randomly selected hospitals in the United States. Returns were received from 330 hospitals, of which only four totally banned smoking. Official smoking policies, usually initiated by administrators, operated in 310 hospitals, 177 of which had revised their policy recently. Visitors, patients who smoked and physicians

were most resistant to smoking limitations and regulations usually applied only to areas involved in direct patient care. Fifty-six per cent of hospitals sold cigarettes on the premises and only 76 hospitals had schemes to stop smoking among employees. The smoking habits of the administrators and whether the state economy was involved with tobacco were both significant factors in smoking policies. Hospitals are failing to take a lead either in creating safe environments or in providing anti-smoking campaigns.

235. ARMITAGE, S. **Non-compliant recipients of health care.** *Nursing Times*, London, 1980, Jan. 3, vol. 76, no. 1, occasional papers; pp. 1-3.

Patients who do not conform to the nurses' image of the patient role or to the rules operating in the ward are termed 'non-compliant' or 'difficult'. These often include patients whom the nurses feel should not be in hospital. Patients suffering from an overdose, for example, are regarded as using resources needed by others and failing to comply with the role expected of them. Other reasons for being 'difficult' include: (i) sudden admission; (ii) change of lifestyle necessitated by being in hospital; and (iii) lack of recognition by the staff of a patient's anxiety regarding the future and the welfare of his family. 'Difficult' relatives are those who criticize the patient's treatment but do not support him when he is discharged. Discussion of the patient's problems may reduce the likelihood of his being a 'bad' patient.

236. THOMSON, C. J. H. **Informed consent to medical treatment in the United States.** *Medical Journal of Australia*, Glebe, N.S.W., 1979, Oct. 20, vol. 2, no. 8, pp. 412-415.

The doctrine of informed consent requires doctors to disclose to a patient in lay terms: (i) a description of the proposed treatment; (ii) the alternatives; (iii) the inherent risks; and (iv) the problems of recuperation. There is some early judicial recognition of the need for patient consent, but whether the treatment had been skilfully carried out was deemed to be more important. The Nuremberg Code states the duties of doctors giving innovative treatment, but its international status is unclear. Recent advances in medical technology have led to an increase in medical specialties and a high level of public expectation. The numbers of malpractice suits in the United States have driven many doctors to practise defensive medicine, that is, over-meticulous attention to all remotely relevant procedures. The development of legal consent has tended to antagonize doctors and result in conflict between patient consent and professional duty. In Australia, the absence of legal consent provides an opportunity for the ethics of medical practice to be re-assessed.

237. STRONG, C. **Informed consent: theory and policy.** *Journal of Medical Ethics*, Edinburgh, 1979, Dec., vol. 5, no. 4, pp. 196-199.

Two separate questions need to be distinguished in discussing informed consent: (i) to what information does a particular patient have a right? and (ii) what policy should a physician follow in divulging information to patients? The former is a theoretical question, which should be considered before discussing policy, though most of the debate on informed consent has been concerned with the latter. The author examines first, theory and then policy. As a result he uses a theoretical account of the right to self-determination to construct what he believes is a reasonable view of that

right. Applying this, he recommends a policy which incorporates the 'reasonable purpose standard'. Delivering the standard information is a good way to begin the process of adequately informing the patient. Beyond this, he would encourage recognition of the limit of the right to information, the answering of those questions which do not obviously go beyond that limit, and an active involvement by physicians in determining what special information a patient needs.

238. WONG, J. **An exploration of a patient-centred nursing approach in the admission of selected surgical patients: a replicated study.** *Journal of Advanced Nursing*, Oxford, 1979, Nov., vol. 4, no. 6, pp. 611-619.

It is well recognized that admission to hospital is a stressful experience for patients, and little attention is directed towards helping patients to adapt to hospital care. This paper reports a study which explored the patient's welfare before and after the use of a patient-centred nursing approach on admission to hospital. The sample comprised 25 patients admitted for elective surgery to a 130-bed hospital. The tools used for collecting the data were the Patients' Physiological Welfare Scale, Patient Emotional Welfare Inventory and Patients' Perception of the Admission Nurse. Generally, there were positive differences between the pre-admission and post-admission physiological differences. The results also indicated a more desirable self-reported emotional state. Likewise, the patients reported a favourable perception of the admission nurse and a positive reaction toward the admission procedure.

239. LEE, E. A. and GARVEY, J. L. **How is inpatient education being managed?** *Nursing Digest*, Wakefield, Mass., 1978, vol. 6, no. 1, pp. 12-16.

A survey of patient education carried out by the American Hospital Association found that 2,680 hospitals out of 6,000 had a scheme of educational activities with defined objectives, but few had a written policy or used a special committee to decide what the policy should be. The department of nursing was generally responsible for co-ordinating patient education policy. Only 13.9 per cent of the hospitals employed a full-time co-ordinator in the department of education or nursing education. The co-ordinator's ability to give support to patient education activities was influenced by the resources available. Most hospitals aimed to educate both the patient and his family. Programmes most frequently offered were those aimed at a specific patient population, for example, in a special unit. Staff members most involved in teaching were nurses. One-to-one teaching methods were used in 96.2 per cent of hospitals and 67.5 per cent documented the educational activities in the medical record. The survey also: (i) evaluated the methods used; (ii) studied the hospitals' own systems of evaluation; and (iii) studied the financing of patient education.

HOSPITAL SOCIAL WORK

240. GROSSMAN, L., HARRELL, W. and MELAMED, M. **Changing hospital practice and social work staffing.** *Social Work*, Albany, N.Y., 1979, Sept., vol. 24, no. 5, pp. 411-415.

This article discusses a number of factors which make social work staffing a matter of considerable variation between one hospital and another. Amalgamation of hospitals

to form large medical centres and advances in the treatment of disease have certain implications for social workers. Shorter hospital stays and the care of the chronically ill in the community have increased the need for patient education and the involvement of the social worker with patients' families. The higher turnover of patients has tended to exclude the social worker from discharge procedures and clinical nurses are taking over some of the social worker's duties in caring for the emotional well-being of the patient. If social workers are to survive in hospitals they must find new ways of applying their skills. They could make the hospital more aware of the need for their services by improving the system of referral and emphasizing their educational function in relation to other departments.

THE GENERAL PRACTITIONER AND HIS PATIENTS

See Abstract No. 150

TRANSPORT OF PATIENTS

241. HOFFER, E. P. **Prehospital advanced life support: what color are the Emperor's new clothes?** *Journal of the American College of Emergency Physicians*, Lansing, Mich., 1979, Oct., vol. 8, no. 10, pp. 434-436.

There are over 200 paramedical emergency systems in operation in the United States. Data show that in a metropolitan area of 500,000 people a paramedical ambulance team handles about 220 cardiac arrests each year and results in about 35 patients leaving hospital alive. However, the service has two potential problems: (i) many lives saved are lost from heart disease within the following two years; and (ii) staff in intensive care ambulances may not be adequately trained to recognize symptoms other than cardiac arrest. Studies have shown that resuscitation carried out when the ambulance arrives is usually too late, whereas resuscitation by bystanders gives a better chance of survival. To make the mobile advanced life support system cost-effective, teams should be sent to possible victims of ventricular fibrillation in preference to patients with respiratory disease or trauma. In addition, schemes to educate the public to deal with emergencies should be encouraged.

HOSPITAL CARE

See also Abstract Nos. 206, 238, 273, 280

242. MÜLLER, H. W. Patientenorientiertes Krankenhaus. **[The patient-oriented hospital.]** *Berichte in Zwangloser Folge*, Düsseldorf, 1979, April, no. 74, pp. 1-3.

Over recent years there have been a number of developments which have tended to make it more difficult to treat the hospital patient in a humane and personal manner. These include: advances in medical technology; increasing specialization in medicine; the introduction of business methods in hospital management; changes in the environment of the hospital and in the family; and occupational circumstances of patients. Each of these factors is discussed. Not merely the diseased organ but the patient as a whole has to be treated. The patient tends to be treated by more and more

people, whose names he does not know; he needs one individual to whom he can turn for information and in whom he can confide.

243. UNKELBACH, E. Patientenorientierte Pflege. **[Patient-oriented nursing.]** *Berichte in Zwangloser Folge*, Düsseldorf, 1979, May, no. 75, pp. 1-3.

There is evidence that nursing is not always patient-oriented: it has instead been shown to be sometimes technique-oriented, nurse-oriented or desk-oriented. To be patient-oriented, nursing care needs to have the following objectives: (i) informing the patient as fully as possible, insofar as this comes within the province of the nurse; (ii) providing care which takes account of the patient's individual needs; (iii) application of preventive measures so that no additional harm is caused; and (iv) avoiding unnecessary waiting time for the patient (X-rays, ECG, etc.). To achieve patient-oriented nursing in hospital practice five main steps need to be taken: (i) re-structuring of nursing organization; (ii) more intensive documentation; (iii) the safeguarding of quality and checking of nursing duties (nursing audit); (iv) proper structuring of workflow; and (v) staff training.

244. FLYNN, K. T. **Modes of delivery of patient care: primary or team nursing.** *Hospital Topics*, Sarasota, Fla., 1979, Nov./Dec., vol. 57, no. 6, pp. 34-40.

Based on a number of published studies, this paper examines the relative merits of primary and team nursing from the points of view of: individualized care planning; nursing process; nursing diagnosis; organizational dimension; staffing pattern; nursing histories (assessment); nursing diagnosis/patients' need for help; and continuity between the nursing assessment and the Kardex plan. Many questions remain to be answered if staff nurses want to change the mode of delivery to primary nursing.

245. ROBERTS, B. V. and GOLDSTONE, L. A. **A survey of pressure sores in the over sixties on two orthopaedic wards.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 4, pp. 355-364.

The Norton method of assessing patients and suggesting those at risk from pressure sores was used in a survey on two orthopaedic wards at Frimley Park Hospital, with particular reference to the possible role of operating theatre experience. Of the 318 patients admitted during the survey period, the study concentrated on the 64 who were aged 60 years or more. In this sample, 13 patients contracted pressure sores while in hospital; 12 of these had Norton scores of 14 or below, indicating that this score successfully located patients who were very much at risk. A further 20 patients were at risk according to their scores but did not contract sores. Patients developing sores had spent significantly less time on the theatre table and in recovery, had very significantly lower Norton scores than those who did not contract sores, and were on average about 12 years older. Of patients who contracted sores, those with greater time spent on theatre table and in the recovery room had less severe subsequent sores.

246. GERTMAN, P. M. and others. **Utilization review in the United States: results from a 1976-1977 national survey of hospitals.** *Medical Care*, Philadelphia, Pa., 1979, Aug., vol. 17, no. 8, supplement (whole issue).

This supplement describes the United States National Utilization Review Survey 1976 to 1977 and discusses the impact of utilization review schemes. The introduction

outlines the development of the peer review system. The survey itself is described under the following headings: (i) methods, response rate and standardization techniques; (ii) general characteristics of utilization review schemes; (iii) reviews performed in hospitals in 1976; (iv) the effect of utilization review on terminations of health insurance benefits; (v) medical audit activity and its impact; (vi) utilization review staffing and costs; (vii) attitudes of hospital administrators and physicians to utilization review; and (viii) national estimates of utilization review activities. The second part of the supplement describes the method used in assessing the impact of utilization and peer reviews, particularly in relation to changes in Medicare use between 1974 and 1976. Medicare lengths of stay in 1976 were also analyzed by using the OPEL model. The real cost-effectiveness of utilization review was hard to evaluate accurately and the authors consider that further studies are needed. Two appendices provide statistical notes and examples of the survey instruments used.

247. LEE, M. E. **Towards better care: 'primary nursing'.** *Nursing Times*, London, 1979, Dec. 20/27, vol. 75, no. 51, occasional papers; pp. 133-135.

The clinical nurse must accept responsibility for good nursing care and should be aware of methods used to assess and measure such care. These methods include accreditation, nursing audit and patient questionnaires. However, none of these really measures the effectiveness of nursing care. The introduction of different tasks for nurses with different levels of experience devalued the nurse's relationship with the patient and the change to team nursing did little to help the problem. 'Primary nursing', whereby the total care of the patient, or at least its planning, is the responsibility of one nurse, has sought to overcome problems of job allocation and remoteness from the patient. Following a pilot scheme in Western Australia, the advantages of primary nursing identified include: (i) development of the nurse-patient relationship; (ii) increased job satisfaction; and (iii) an increase in learning by both students and qualified nurses.

248. GARG, M. L. and others. **Physician specialty, quality and cost of inpatient care.** *Social Science and Medicine*, Oxford, 1979, Oct., vol. 13C, no. 3, pp. 187-190.

With recent pressures to contain health care costs, questions have arisen as to the effect of such controls on the quality of care available. This study uses Payne's Physician Performance Index (PPI) as a measure of the quality of patient care and to compare different physician specialties for selected conditions. Hospital charges have been added as a measure of the cost generated by physicians for these conditions. Routine hospital data were extracted from a six month patient file for three cardiovascular conditions and two urological conditions. The analysis compares length of stay, total ancillary charges and quality of care provided. It is shown that in this hospital, for the conditions selected, the quality of care provided by primary care physicians as against specialists was similar, when judged by the PPI. However, the specialists generated lower hospital charges because their patients spent fewer days in hospital.

249. STONE, M. E. and NELSON, G. L. **Co-ordinated treatment for long-term psychiatric inpatients.** *Social Work*, Albany, N.Y., 1979, Sept., vol. 24, no. 5, pp. 406-410.

The treatment methods and staffing of the Continued Treatment Unit of Fulton

State Hospital, Fulton, Mo., is described. The unit houses 190 residents of all ages, of whom two-thirds are schizophrenic. The treatment programme employs behaviour modification through a system of rewards, coercion and milieu therapy, which focuses on increasing residents self-sufficiency and ability to function in a group. The programme is composed of two parts: (i) a four step system of ward activity, requiring an increasing degree of skill and with less tangible rewards for behaviour at the higher levels; and (ii) a number of services throughout the unit, including training in living skills, medication education and special treatment schemes. Staff work for the unit rather than their own discipline. The unit director decides which services are needed and is responsible for their co-ordination within the unit. Although a full evaluation has yet to be carried out, results so far indicate that the unit's policy is increasing social interaction and awareness among residents.

TERMINAL CARE

See also Abstract No. 278

250. UNITED STATES. NATIONAL HOSPICE ORGANIZATION. STANDARDS AND ACCREDITATION COMMITTEE. **Standards of a hospice program of care.** 6th revised edition [Vienna, Va.], National Hospice Organization, 1979, 38pp. $20.00

The National Hospice Organization has attempted to identify standards which are intrinsic to all forms of hospice care and to establish criteria to evaluate these services. As with hospital accreditation, the intent is to ensure a certain level of care, but has a somewhat wider coverage than the purely medical. Twenty-two standards are proposed and discussed, many of them relating to subjects such as the involvement of the family and ethical considerations rather than to strictly patient care. A short glossary is included.

251. PARKS, P. **Hospice care for dying patients: a look at the issues.** *Trustee*, Chicago, Ill., 1979, Oct., vol. 32, no. 10, pp. 29-32.

Hospice care is provided by an interdisciplinary team and seeks to meet all the needs of the dying patient. The patient's family are very much involved and receive continued support after the patient's death. In the United States, the question of third party reimbursement for hospice services still has to be resolved. Unfortunately, no data are available to assist health planners in determining the need for hospice care in any given area. Hospice schemes have developed without formal standards of quality of care and are not always accepted by physicians. Despite the unanswered questions, hospice care is increasing in the United States, either in independent facilities or in a wing or unit of a hospital. This latter arrangement has certain advantages, both medical and financial.

252. WALD, F. S. **Terminal care and nursing education.** *American Journal of Nursing*, New York, 1979, Oct., vol. 79, no. 10, pp. 1762-1764.

Hospice care is increasing rapidly in the United States, but very little training exists to prepare professionals for this work. However, several institutions have hospice services sufficiently established to provide clinical experience for trainees. In order to

calculate how many nurses need training for terminal care, it is necessary to estimate how many terminally ill patients are likely to choose palliative care in any one area. Any training programme should include: (i) information on alternative approaches to care; (ii) knowledge of palliative treatment, including reactions to drugs and symptoms unrelated to the malignancy; (iii) how to involve and support the patient's family; (iv) understanding of ethical issues; and (v) involvement in planning services for the terminally ill. As the interest in terminal care facilities and government support for them grows, the following need to be considered: (i) a register to record services for terminal care and the existing training opportunities; (ii) peer review in hospices; (iii) support for training schemes; and (iv) interdisciplinary meetings to exchange ideas about palliative and spiritual care.

HOME CARE, AFTER-CARE

See also Abstract Nos. 284, 289

253. PRUE, D. M. and others. **An analysis of distance variables that affect aftercare attendance.** *Community Mental Health Journal*, New York, 1979, vol. 15, no. 2, pp. 149-154.

Since after-care is an important part of the success of treatment, recent research has attempted to identify variables related to attendance at after-care clinics. The study described examined 40 subjects for after-care attendance following discharge from the Alcohol Treatment Unit of the Jackson Veterans Administration Hospital, Jackson, Mississippi. Subjects had completed a two-year course of treatment and lived outside Jackson. The results of the study supported earlier findings that distance from the clinic has a significant effect on attendance. However, the distance to a main road was of more significance than the distance on the road. Other factors associated with rural living, for example degree of poverty and existence of community services, may also account for attendance differences. Training community workers and the provision of transport are two factors which might help increase after-care attendance rates.

SPECIAL DEPARTMENTS

WARDS

See Abstract No. 224

ANAESTHESIA

254. PAYNE, J. P. **The role of the anaesthetist in modern hospital practice.** *Middle East Health*, Morden, 1979, Dec., vol. 3, no. 11, pp. 44-47.

After outlining the development of anaesthesia since its early beginnings over 130 years ago, this paper examines the modern role of the anaesthetist and the effect new technology and procedures have had on training and research.

255. OEHMIG, H. Krankenhaushygiene aus der Sicht der Anästhesiologie. **[Hospital hygiene from the viewpoint of anaesthesiology.]** *Öffentliche Gesundheitswesen*, Stuttgart, 1979, Nov., vol. 41, no. 11, pp. 798-801.

The necessary measures to promote hygiene in operating theatres and intensive care units are outlined. It must be borne in mind that in operating theatres the room, the drapes, the protective clothing and gloves, and the instruments are sterile. Care must therefore be taken to ensure that surfaces, and other objects are thoroughly cleaned and disinfected between operations. In intensive care units patients should be in separate rooms with disinfectant dispensers for hand cleaning at each door. Visitors should normally only communicate with patients by telephone, with visual contact through glass partitions; exceptionally visitors may be allowed at the bedside but only if the strict isolation procedures, as used by staff, are followed.

PHARMACY

See also Abstract No. 202

256. **Report of working party on computers in pharmacy.** *Pharmaceutical Journal*, London, 1980, Jan. 5, vol. 224, pp. 9-13.

The recommendations of a working party set up to study the use of computers in pharmacy were accepted by the Council of the Pharmaceutical Society in January 1978. A condensed version of the report is given under the following headings: (i) methods of approach; (ii) use of computers in industry and commerce; and (iii) application of computers to pharmacy in: the pharmaceutical industry; pharmaceutical wholesaling; general practice pharmacy; hospital pharmacy; and academic pharmacy. The working party considered drug coding for the entry of information on medicines into the computer, the problem of confidentiality of computerized patient records and the possible effect of computers on employment in pharmacy. This discussion led the working party to recommend that the Pharmaceutical Society should: (i) work with other organizations to establish a computer input code for medicines; (ii) encourage pharmacists to accept the introduction of computerized patient pharmaceutical records; and (iii) draw up a syllabus to train pharmacists in the use of computer systems.

257. GLASS, R., SCHONFELD, S. and ROCCO, V. **Meperidine surveillance in an out-patient department: the recognition of misuse and its control.** *Journal of Community Health*, New York, 1979, vol. 5, no. 1, pp. 28-35.

A surveillance system was set up at the Mount Sinai Hospital, New York, to examine the extent of narcotic abuse by means of tampering with prescriptions. All out-patient prescriptions for meperidine were reviewed over a six-month period and 17 high users were considered to be at greatest risk of misuse. They received 55 per cent of all meperidine dispensed, obtained their prescriptions from the emergency room and rarely saw the same physician twice. Among these patients, four cases of abuse were identified. As a result, prescriptions in the emergency room were limited to 12 tablets, except after consultation with a clinic physician. Care of the high user group was transferred to clinics and the use of less potent analgesics was encouraged where

possible. The risk of out-patient drug abuse can be reduced by: (i) the setting up of a registry for narcotic surveillance; and (ii) limiting prescribing to the physician responsible for the patient's long-term care.

258. SMITH, M. I. and WERTHEIMER, A. I. **Maximum allowable cost: can the government control drug costs?** *Journal of Health Politics, Policy and Law*, Durham, N.C., 1979, vol. 4, no. 2, pp. 155-175.

In 1973 the United States government moved to limit drug reimbursement in federally sponsored or supported programmes to the lowest cost at which the drug is generally and consistently available, unless a difference in therapeutic effect can be demonstrated between the brand name and generic drug. This paper examines the political evolution and rationale for this programme and explores the issues surrounding the continuing controversy regarding publicly financed programmes offering pharmaceutical benefits. The authors speculate that the government's first attempt to control drug prices, prior to enactment of some form of national health insurance, if successful, will call forth pharmaceutical industry strategies which could negate programme benefits.

259. HELLING, D. K., HEPLER, C. D. and HERMAN, R. A. **Comparison of computer-assisted medical record audit with other drug use review methods.** *American Journal of Hospital Pharmacy*, Washington, D C., 1979, Dec., vol. 36, no. 12, pp. 1665-1671.

The accuracy and efficiency of four systems of drug use review (DUR) were compared. The four methods are: (i) a complete manual audit of medical records using explicit criteria; (ii) a computerized prescription screening using explicit criteria; (iii) a computer-assisted medical record audit (CAMRA) using method (i) and modified method (ii) criteria; and (iv) a quantitative characterization of the prescriptions written. The accuracy and time-cost efficiency of methods (i), (ii) and (iii) were compared statistically with method (i) being taken as the standard. The results indicated that CAMRA was most useful to DUR schemes in out-patient and in-patient settings because it allowed estimation of unacceptable prescribing rates from partial medical record audit data and provided information on types of inappropriate prescribing.

260. MCKENNEY, J. M. and WASSERMAN, A. J. **Effect of advanced pharmaceutical services on the incidence of adverse drug reactions.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1979, Dec., vol. 36, no. 12, pp. 1691-1697.

The effect of clinical pharmaceutical services and drug distribution and administration services on the incidence and nature of adverse drug reactions and the average length of hospital stay of hospitalized medical patients was studied. A pharmacist investigation and nurse monitors of the Boston Collaborative Drug Surveillance Program independently monitored the incidence of adverse drug reactions on medical wards of a large teaching hospital. The incidence of adverse reactions decreased from 26 per cent of 116 patients to 16 per cent of 112 patients during the first two periods according to pharmacist investigation data and from 21 per cent of 77 patients to 16 per cent of 64 patients to eight per cent of 73 patients during the three respective periods according to nurse monitor data. The study suggests that clinical pharmaceuti-

cal services alone, and especially when combined with a modern drug distribution and drug administration system, may have an important impact on the incidence of adverse drug reactions in hospitalized patients.

LABORATORIES

See also Abstract No. 189

261. ENGER, S. C. EDB som hjelpemiddel i klinisk-kjemiske laboratorier. **[Automatic data processing as a clinical chemical laboratory aid.]** *Sykehuset*, Oslo, 1979, vol. 42, no. 8, pp. 607-611.

Starting in 1974, the Norwegian Central Institute for Industrial Research developed a computer-based system for use in clinical chemical laboratories: it encompasses test routines, taking and distribution of samples and specimens, recording of results, and administrative (billing and statistical) routines. A pilot scheme was started in 1976, and the system has been in routine use at Drammen Hospital since 1977. The system has worked very satisfactorily during a period of expansion, a 25 per cent increase in the number of analyses being absorbed without an increase in staff. Until the ØMII on-line patient administrative system is introduced in 1980, patients are registered on admission or first out-patient contact on a special card, in-patients' particulars are punched automatically on the requisition card. Samples and specimens are requisitioned by marking the card with a pencil. A card-reader prints labels and results cards for laboratory use. The computer distributes provisional analysis results to wards several times a day, and confirmed results are printed out and distributed at night. The computer also prints lists of tests asked for but not carried out, quality control lists and statistics for the laboratory. Two other hospitals are developing similar systems, and the County Data Centre is taking over responsibility for the maintenance and development of the laboratory system.

BLOOD TRANSFUSION DEPARTMENT

262. SPRI. Blodförsörjning: blodkyllådor med övervakningssystem för bloddistribution, transport av biologiskt material m m. **[Blood supply: blood coolers with a monitoring system for blood distribution, transport of biological material etc.]** (Spri Rapport 5) Stockholm, Spri, 1979, 59pp.

This report describes blood bank work and organization. Medical aspects of blood transfusion are examined and methods of storage and distribution of blood are described. Blood to be used for transfusion must be transported and stored at a temperature of about four degrees centigrade. A distribution system consisting of blood coolers with a monitoring system has been devised consisting of a central monitoring station from which the temperature of the blood coolers located on the wards and in the departments, and the remaining contents of blood bags can be checked. Should the refrigeration unit break down, an alarm is triggered at the point where the cooler is stored and at the monitoring centre. Blood can therefore be stored in readiness near the patient and on wards, or in rooms isolated against the spread of infection by air locks. The average frequency of spoilage due to improper handling can be estimated at about 10 per cent; a reduction of the spoilage frequency at a county

hospital by eight per cent would pay for the investment necessary for the distribution system.

DIAGNOSTIC X-RAY DEPARTMENT

263. BAKER, S. R. **The diffusion of high technology medical innovation: the computed tomography scanner example.** *Social Science and Medicine*, Oxford, 1979, Nov., vol. 13D, no. 3, pp. 155-162.

In order to review the distribution of computerized tomography (CT) scanners, a questionnaire was sent to radiology directors of 495 United States hospitals in 1977. By that year, 91 per cent of large hospitals were using or had ordered CT scanners. Teaching hospitals took an early lead in purchase but other large hospitals soon caught up. The later whole-body scanners were purchased more quickly than the early more limited kind. The most usual reasons for purchase were: (i) the CT scanner's effectiveness in diagnosis; and (ii) its high cost-benefit ratio. Constraints on purchasing included government regulations and the high initial cost. These factors have caused disparities in implementation between different regions and types of hospital. This situation has resulted in legislation seeking to insure a fairer distribution. However, too much control could stifle future innovations.

REHABILITATION

See also Abstract No. 299

264. HÖÖK, O. **Rehabilitation medicine in Sweden Part 1—organizational concepts. Part 2—education and research.** *International Rehabilitation Medicine*, Basle, 1979, vol. 1, no. 4, pp. 208-215.

The Swedish National Board of Health and Welfare recently presented the general outlines of its programme for rehabilitation medicine. The numbers of those needing rehabilitation have increased rapidly in recent years, the model plan of the National Board of Health proposes an extension of regional, county and primary care services. Account must be taken of long-term care for the elderly who require a different type of rehabilitation from younger patients hoping to return to work. Rehabilitation should be readily available at a primary care level, but cases of traumatic spinal injury will usually need acute treatment at the spinal unit of a regional hospital. Rehabilitation medicine should be included in basic medical education, as well as being a post-graduate specialty. To train as a specialist, three years clinical work in different branches of rehabilitation medicine is required. Courses for physiotherapists and most courses for occupation therapists are attached to departments of rehabilitation medicine at university and regional hospitals. Examples of present research projects include; (i) development of techniques for the evaluation of function; and (ii) development and evaluation of techniques for functional training.

265. NICHOLS, P. J. R. **Rehabilitation of the stroke patient.** *Age and Ageing*, London, 1979, supplementary issue, pp. 67-75.

Rehabilitation of the stroke patient with a good prognosis should start without delay and active exercises introduced as soon as possible. Much of the long term management of the hemiplegic is concerned with spasticity. Most hemiplegics will require walking

aids for some time and different types of braces, calipers and splints are described. Evaluation of walking potential must include all those factors related to the motor aspects of walking. About one in five will never achieve independent walking and will need a wheelchair, but these are not always easy to control, especially for the elderly. Intensive rehabilitation achieves improved function in the majority of patients surviving the first few months after an acute cerebrovascular episode and the average stay in a rehabilitation unit is six weeks. However, the patient's attitude of mind will greatly affect the degree of recovery. There is a need for competent evaluation of the rehabilitation process using suitable measures of clinical, functional and social outcome.

266. BENOS, J. Zur Therapie und Rehabilitation jugendlicher Drogenabhängiger in einer Spezialklinik. **[Treatment and rehabilitation of young drug addicts in a special hospital.]** *Rehabilitation*, Stuttgart, 1979, Nov., vol. 18, no. 4, pp. 204-212.

The special hospital at Hochstadt-on-Main admits alcoholics and drug addicts aged up to 30 on a voluntary basis. Patients are first admitted to a closed ward where withdrawal measures are taken; they are then kept under observation for after-effects and possible illnesses, and are treated in co-operation with medical specialists. The ratio of treatment staff to patients is 1:2.4 so that a wide range of treatment can be offered, including psychotherapy, occupational therapy, physiotherapy, music therapy, socio-educational care and acupuncture. The paper includes a detailed treatment schedule. An analysis of results shows that, of 360 drug addicts, 70 per cent remained cured up to six months, 59.8 per cent up to one year and 40 per cent for more than a year after discharge.

OCCUPATIONAL THERAPY DEPARTMENT

267. SACKETT, J. **What of the future?** *Nursing Times*, London, 1979, Nov. 29, vol. 75, no. 48, pp. 2066-2068.

Psychiatric treatment may be given in special units in large general hospitals, in day centres, or in psychotherapy groups. Occupational therapy services, however, are often provided at one centre to psychiatric, mentally handicapped and physically handicapped patients; but all these groups need different treatment and facilities. Psychiatric patients need a wide range of activities, including work which is relevant to their job and the world outside the hospital or centre. Voluntary helpers can help to bridge the gap between the hospital and the community. Often patients are discharged from hospitals to group hostels but little provision is made for day time activities. The key to successful occupational therapy among psychiatric patients lies in the willingness of occupational therapists, nurses and doctors to work together as a team.

INTENSIVE CARE UNITS

See also Abstract Nos. 171, 207, 278, 289, 293, 294

268. PULVIRENTI, A. Il rischio di infezioni in chirurgia e nei centri di rianimazione e terapia intensiva. **[Surgical infection risks in intensive care units.]** *Ospedale*, Torino, 1979, Oct., vol. 32, no. 10, pp. 277-282.

A general discussion of the problem of hospital cross-infection is followed by a

series of recommendations on how to reduce this. Any apparatus that can be sterilized should be treated immediately after use; parts which cannot tolerate heat treatment and equipment which cannot be moved should be disinfected mechanically, using brushes, water jets, and disinfectant. Operating theatres and intensive care units (ICUs) should have two separate sectors, one septic and one aseptic, with filter entrances and exists for staff. The aseptic centre should have an appropriate air-conditioning and air-disinfecting system. The installation of a horizontal laminar flow system with air filters is recommended for theatres where transplant and prosthetic surgery is done. Wards in the ICU should be subdivided into single-bed cubicles each with a pre-filter; post-operative patients should have single rooms. Wall and ceiling surfaces should be smooth and rounded. Manoeuvres such as perfusion and catheterization should be reduced as far as possible, and anti-biotic therapy should be used sparingly.

269. GREEN, M. **Parent care in the intensive care unit.** *American Journal of Diseases of Children*, Chicago, Ill., 1979, Nov., vol. 133, no. 11, pp. 1119, 1120.

This paper emphasizes the need for care to be given to the parents of children in intensive care units. The paediatrician and paediatric nurse need to be as understanding of mothers and fathers as of infants and children. This concern includes attention to the parents' comfort. Although it requires several health professionals to provide the comprehensive care required by a critically ill child, there should be one person who is the chief source of information and who should talk to the parents at regular intervals. The family doctor should also be kept informed. In some hospitals a patient service representative has proved invaluable in helping parents to cope with the stresses of having a child in intensive care.

SPECIALIZED HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 257, 300

270. REILLY, T. A. and others. **A delay-scheduling model for patients using a walk-in clinic.** *Journal of Medical Systems*, New York, 1978, vol. 2, no. 4, pp. 303-313.

The Diagnostic Clinic, City Hospital Center at Elmhurst, Queens, N.Y., is a walk-in, non-appointment clinic that has about 39,000 patient visits per year and is staffed by three physicians, each seeing about 40 patients per day. Faced with the need to reduce its budget without degrading its service, the clinic used a computer simulation model to evaluate several policies for physician scheduling and for patient flow management in the clinic. The experiments were based on a new form of scheduling called delay scheduling. Delay scheduling makes it possible to shift work load from periods of high congestion to other times without compromising the walk-in nature of the clinic. The delay scheduling and staffing changes resulted in reduction of manpower by 10 per cent while significantly reducing the clinic-accountable waiting time.

CASUALTY AND ACCIDENT

See also Abstract No. 241

271. BECKERS, R. Organisatorische problemen in de dringende medische hulpverlening. **[Organization of emergency medical care.]** *Archives Belges de Médecine Sociale, Hygiène, Médecine du Travail et Médecine Légale*, Bruxelles, 1979, Feb., vol. 37, no. 2, pp. 65-92.

In view of the increase in road accidents in Belgium an analysis has been carried out of the existing medical emergency services. The initial calls concern accidents on the road, at work and at home, requiring advice and calls for ambulances, fire brigade or police. The emergency number (900) is connected to 16 call centres from which hospitals, ambulances and so on are alerted on different call frequencies. The study considered the selection and training of staff for the centres and the distribution of the ambulance stations throughout the country, and type of ambulances used. Patients' transport, lengths of journeys, population densities, and qualifications of ambulance staff were investigated. Hospital admissions, including availability and type of emergency units, were also studied. All aspects are discussed in detail, amply supported by statistics. Recommendations for improvements are: (i) adaptation of the telecommunication systems; (ii) better distribution of the ambulance services; (iii) better training of call centre and ambulance staff; and (iv) a more efficient organization of the emergency units in the hospitals. The paper includes a diagram of the organization of the present services, nine tables, four graphs, three maps and a list of references.

272. KLEIMAN, M. B. **Emergency room use and access to alternative sources of care.** *Sociology of Health and Illness*, Henley-on-Thames, 1979, Dec., vol. 1, no. 3, pp. 318-330.

Many researchers have claimed recently that emergency rooms in United States hospitals are being used for routine rather than emergency care, being the most convenient health facility available for an increasing number of people. Using national survey data, the author examines emergency room use in the light of accessibility to, rather than the mere presence of, more traditional sources of care. Dependent variables were: (i) the number of visits made to an emergency room during the previous year; (ii) the analagous number of visits to physicians in other locations during the same period. Explanatory variables used were income, age and residence. Control variables included four commonly used measures of illness and concern over health. Multiple Classification Analysis was used to analyze the data. The findings suggested that, contrary to current opinion, visits to emergency rooms often occur independently of, rather than as a substitute for, access to other providers of health care.

273. HEADRICK, R. W., LEONARD, M. S. and GOLDMAN, J. **A quality of care evaluation measure for emergency medical service systems.** *Journal of Medical Systems*, New York, 1978, vol. 2, no. 4, pp. 281-301.

This paper describes the development and validation of a measure for evaluating the quality of care in emergency medical service (EMS) systems. The System Input Severity Measure consists of a set of single and multiple injury survival rates that would be expected to occur in an EMS system classified as providing 'baseline' advanced life support services. These expected survival rates were developed by a nationwide panel of emergency medicine experts through the use of the Delphi group opinion

surveying technique. The measure was validated by comparing the resultant expected survival rates with Illinois Trauma Registry data and using data collected in EMS systems generally recognized to be providing exceptional (either superior or inferior) emergency patient care. A functional relationship between single and multiple injury survival rates was also developed. It appeared that when used in conjunction with data developed from the Delphi technique, such an approach would make practicable the development of a comprehensive System Input Severity Measure.

DAY HOSPITALS

See also Abstract No. 282

274. MacFarlane, J. P. R. and others. **Day hospitals in modern clinical practice—cost benefit.** *Age and Ageing*, London, 1979, supplementary issue, pp. 80-86.

A survey of the Victoria Geriatric Unit (day hospital) in Glasgow from its opening in 1972 to 1977 revealed that a constant 37 per cent of patients attended the day hospital immediately after discharge, while the others had not received in-patient care. Stroke and other neurological disorders accounted for the largest proportion of patients. Most required physiotherapy and occupational therapy. Other help given included dental treatment, blood pressure monitoring and supervision of drug therapy. Links with a day centre provided a continuity in social contact after discharge from the day hospital. The total number of visits increased in the period under review and over a third of the patients improved. A total costing of the unit resulted in a figure of £13.60 per patient visit, or an average of £47 per week. Without the day hospital, many patients would require in-patient care at a much higher cost.

275. Brocklehurst, J. C. **The development and present status of day hospitals.** *Age and Ageing*, London, 1979, supplementary issue, pp. 76-79.

By 1977 there were 303 day hospitals in the United Kingdom and the number continues to increase. They are usually purpose-built and situated within geriatric hospitals. Over half have two or more consultants, one third have a joint occupational therapy and physiotherapy department and over 70 per cent take both out-patients and in-patients. Average weekly attendances at day hospitals are 50 to 100 in 46 per cent, 101 to 150 in 21 per cent and over 150 in 17 per cent. Ninety-four per cent have a defined catchment area, 50 per cent have no lower age limit and 37 per cent have a separate psycho-geriatric day hospital. Nearly all day hospitals have state registered nurses on the staff and 58 per cent have a qualified social worker. The author discusses the design and accommodation of three day hospitals and one day centre: (i) the Lennard day hospital, South London; (ii) the day hospital in the University Hospital of South Manchester; (iii) the Bolton day hospital; and (iv) the Newham Day Centre, a social centre concerned with assessment.

276. Lacasta, D. P. Bases para la organización de hospitales geriátricos de día en Cataluña. **[Foundations of the geriatric day hospital structure in Catalonia.]** *Estudios sobre Hospitales*, Barcelona, 1979, no. 96, pp. 39-50.

Convinced that Catalonia would benefit from a network of geriatric day hospitals (GDH) on the English pattern, the author describes the functions of the GDH, the

most important of which are rehabilitation, prevention of loss of motivation, preventive geriatrics, and prevention of the isolation of the old and infirm. Mobility problems are the most frequent handicap among the elderly, and 22 per cent of elderly people in Catalonia cannot get about alone. The author briefly describes the type of construction required for a GDH—a small, airy, single-storey pre-fabricated building, with room for 30 patients at a time. He lists the staff that would be required and emphasizes the importance of the physiotherapy facilities and adequate transport. A GDH would cost 20 million pesetas initially and the author suggests how it might be financed: by contributions from central government, local government, insurance companies, and other sources. He stresses the fact that provision of GDH facilities would go a long way to reducing the 'permanent' hospital population.

277. DILNOT, G. E. **The benefits of day unit surgery.** *NATNews*, Matlock, 1979, Dec., vol. 16, no. 12, pp. 12, 16, 17, 19, 20, 25.

The development of and rationale for day surgery are outlined. In the early days the only accommodation available was in a general surgical ward or the out-patient department, but the concept of special self-contained units for the treatment and care of day patients has now evolved. At Warneford Hospital, Leamington Spa, accommodation vacated by the school of nursing was adapted and equipped as a day surgery unit which came into operation in August 1966. The whole unit was upgraded in 1974. The accommodation now includes an operating theatre, an eight-bed admission and recovery ward, clean and dirty utility rooms, nurses' station, store, kitchen, staff and patient toilets and changing rooms, and patients' sitting area. The unit, which functions extremely well and presents few problems, now treats some 1,600 patients a year. A survey of other hospitals indicated that day surgery units are now a well-established and accepted part of the National Health Service. The future of day units is discussed.

INFECTIOUS DISEASES AND ISOLATION

See Abstract No. 286

CHILDREN

See also Abstract No. 269

278. WALLER, D. A. and others. **Coping with poor prognosis in the pediatric intensive care unit.** *American Journal of Diseases of Children*, Chicago, Ill., 1979, Nov., vol. 133, no. 11, pp. 1121-1125.

An intensive care paediatrician who tells parents that their child's illness is irreversible may encounter denial and hostility—the Cassandra prophecy phenomenon. Four cases are reported in which parents rejected their child's hopeless prognosis, counter-prophesied miraculous cures, resolved to obtain exorcism, criticized the care, or accused nurses of neglect. This produced a painful breakdown in the usually harmonious relationships between doctors, nurses and parents. Parental denial as a coping mechanism is discussed. Guidelines are presented for the prevention and/or early recognition and management of the Cassandra prophecy phenomenon. A miraculous recovery in one case is a potent reminder to physicians and nurses that they do not have the gift of divine prophecy and cannot see with certainty into the future.

279. La clinica pediatrica universitaria di Berna. **[The paediatric clinic of Berne University.]** *Tecnica Ospedaliera*, Milano, 1979, Nov., vol. 9, no. 11, pp. 20-31.

This is a short but profusely illustrated description of the 269-bed University Paediatric Clinic in Berne, which was completed in 1977. A three-storey teaching block adjoins the 13-floor ward block and the nine-floor treatment and diagnosis block. Construction was based on a three-dimensional cube-shaped module. Prefabricated, standardized components were used almost throughout and the internal walls are interchangeable. Patients' rooms and laboratories are standardized. Twenty photographs of the exterior and of the interior of the clinic, and of individual prefabricated components, four ground plans, and 26 diagrams illustrate this description and explain how the modular system was applied.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 245, 274-276

280. HANSEN, J. S. Langtidsmedicin. **[Long-stay medical care.]** *Tidsskrift for Danske Sygehuse*, København, 1979, Sept., vol. 55, no. 8, pp. 137-140.

Recognizing the growing need for long-term hospital treatment amongst elderly people, more and more hospitals are now setting up long-stay medical departments. The article considers the various criteria used to admit patients and the forms of treatment available. A comparison is made between such hospital care and the role of old people's homes, the former seeking to exploit every possibility of improvement, while the latter attempts to maintain patients' health without serious deterioration. An example is given of a newly opened long-stay medical department at Glostrop near Copenhagen, where various principles have been implemented with a view to making the environment pleasing and to widening the range of activities offered to patients.

281. BREM, A. M. and TOROK, E. M. **Nosocomial infections in the elderly.** *Hospital Topics*, Sarasota, Fla., 1979, Nov./Dec., vol. 57, no. 6, pp. 10, 40-43.

Since 1969 the overall hospital infection rate for the 600-bed St. John Hospital, Detroit, Mich., averaged 3.5 per cent. Incidence in the year 1977 was examined to compare geriatric patients (over 65 years of age) with younger patients with regard to number and type of hospital infection. Of the 24,625 patients admitted, 4,541 were over 65 years of age. Average length of stay was eight days for all patients and 13.1 days for geriatric patients. Hospital infections occurred in 3.6 per cent of all patients, 2.1 per cent of patients under 65, and 10 per cent of geriatric patients. A large number of geriatric patients who acquired hospital infections were diagnosed upon admission as suffering from chronic diseases such as hyper-tension, diabetes, cardiovascular diseases and renal abnormalities. Urinary catheterization and inhalation therapy were often found to be associated with their infections. The problem has no easy solution. A good understanding of microbiology, infectious diseases and the host/parasite relationship will help.

282. Notas sobre algunos hospitales geriatricos de día en Gran Bretaña. **[Notes on some geriatric day hospitals in Great Britain.]** *Estudios sobre Hospitales*, Barcelona, 1979, no. 96, pp. 22-36.

The author describes, from the literature, three geriatric day hospitals (GDH) in

the South of England—St. Thomas' GDH at Herne Hill, St. Mary Abbott's in Kensington, and the Ellesmere Day Hospital in Walton-on-Thames. He explains the purposes of a GDH and describes the clientele, the therapeutic and social activities, and the staff complements in these three English units. He explains how they are financed and what they achieve. He also examines the contribution made by occupational therapists, physiotherapists, and voluntary workers.

283. FIELDING, P. **An exploratory investigation of self concept in the institutionalised elderly, and a comparison with nurses' conceptions and attitudes.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 4, pp. 345-354.

Studies indicate that the self concept of geriatric patients and the effects of institutionalization on that self concept are closely bound up with nurses' attitudes towards old people in general and geriatric patients in particular. In an investigation of this relationship, 10 female geriatric patients were selected randomly from each of four areas which were taken to represent progressive stages of institutionalization: day hospital, assessment ward, rehabilitation ward, and long-stay care ward. From a total of 37 nurses (trained, untrained and in training) responses were obtained from 22, using the semantic differential scale and Kogan's old people scale. There was no evidence to suggest that self concepts are seriously disturbed by institutionalization, but there is an indication that decreased activity and feelings of powerlessness and dependency play a significant role in both patients' views of themselves and nurses' views of patients.

284. SOTTANI, G. Le alternative al ricovero ospedaliero degli anziani. **[Alternatives of hospital care for the elderly.]** *Tecnica y Metodologia Economale*, Firenze, 1979, Sept./Oct., vol. 18, no. 5, pp. 327, 329, 330.

Many elderly patients, and women in particular, occupy hospital beds for social rather than medical reasons. This problem is bound to become more acute as the percentage of people aged 65 years and over increases. The author briefly examines the alternatives: domiciliary services (ranging from a home help for a few hours a week to meals-on-wheels twice a day); special housing for the elderly; and regular visits by social workers to the elderly in their own homes to give them advice and support.

CANCER

285. BLUM, B. I. and LENHARD, R. E. **An oncology clinical information system.** *Computer*, Long Beach, Calif., 1979, Nov., vol. 12, no. 11, pp. 42-50.

The Johns Hopkins Oncology Center has 56 beds and is capable of serving 500 out-patients per week. At any one time, there are 1,500 patients being treated under one or more of several hundred formally established treatment plans called protocols. The primary goals of the centre's computer-based oncology clinical information system (OCIS) are to manage the patient's data, provide early warning of impending problems and generate automatic reminders concerning the multiple actions required by the various treatment plans. It also assists in special research projects and the administration of the centre. OCIS, which makes use of data from the hospital's other

information systems, operates on a dedicated PDP 11/70 and is written in MUMPS-11. There are 30 terminals located throughout the centre. Five classes of OCIS files are used: patient, locator, inverted, dictionary and system. Most of the data is in the form of patient files, which include an abstract file, central census file, patient data files, treatment plan file and request files. The system prepares a daily treatment plan for each patient.

286. DIETRICH, M. **Reverse isolation and gut decontamination in the management of cancer patients.** *European Journal of Cancer*, Oxford, 1979, vol. 15, pp. 45-49.

Reserve isolation and gut decontamination in the management of cancer patients has never been evaluated satisfactorily. Plastic tents and laminar air flow rooms protect patients during a period of high susceptibility to infection, but the procedure must be combined with decontamination measures. Decontamination of the body is done by washing the patient in disinfecting solutions and sterile water. Inhalation with antibiotics keeps the oral cavity free of contamination, but ointments used on the nose and outer ear are not very effective. Bacteria in the intestinal tract can only be destroyed by a combination of non-absorbable antibiotics, often with unpleasant side-effects for the patient. Possible combinations of antibiotics are compared. Studies have shown that infection is decreased in patients treated by isolation and gut decontamination, but some results, especially among patients with acute leukaemia, vary considerably. There are 30 references.

CARDIOLOGY

See also Abstract No. 196

287. JACOBS, W., BUDKIN, A. and HUNT, D. **On-line storage, retrieval, and evaluation of long-term electro-cadiographic monitoring data.** *Journal of Medical Systems*, New York, 1978, vol. 2, no. 4, pp. 363-371.

A set of on-line computer programs has been designed and implemented for the acquisition and long-term storage, retrieval, and evaluation of Holter monitoring data at the 258-bed Miami (Fla.) Heart Institute. The availability of a time-sharing computer installation supporting a hospital-wide information system made the development of this subsystem an economically feasible proposition. The physician interpreting Holter tapes enters his findings in the computer system using an on-line remote terminal in the heart station. The programs are available practically around the clock and allow reviewing of individual cases, preparation of printed reports, and fast evaluation of the presence or absence of a number of common findings in the entire data base. Approximately 800 cases have been entered since the initiation of this project early in 1977.

288. LONDON HEALTH PLANNING CONSORTIUM. **Report of the study group on cardiology and cardiothoracic surgery.** London, [DHSS], 1979, [ii], 63pp.

This is one of a series of studies on the provision of specialties in the Thames regions. Cardiology is practised in some form in all district general hospitals as an integral part of general medicine and in specialist units undertaking non-invasive investigations, some of which also provide a pacemaker service. The study, however, concentrates on

units where invasive investigations are undertaken, usually in association with cardiac surgery. The haphazard but rapid development of cardiothoracic facilities is traced and information is given about existing hospitals. The proposals include concentration of services into fewer, larger units (Regional Cardiac Centres), with each general teaching hospital that does not have a cardiac centre linked formally with one that does. A number of appendices provide background statistical data and information about related studies.

289. COLLING, A., editor. **Coronary care in the community.** London, Croom Helm, 1977, 226pp. £12.95. ISBN 0 85664481 1

Coronary care is normally seen in terms of hospital treatment but in Britain there is some evidence that patients can be successfully treated at home with little fuss. This book is based on a 'National Workshop' held on Teesside in 1976 and gives a wide range of views, including those of people working in coronary care units, mobile care units and in general practice. Interesting evidence is given which suggests the balance between hospital and community care, and the level of expenditure and technology required, may need re-thinking.

290. PALMINIELLO, A. and others. Profili strutturali ed organizzativi dell'ospedale cardiologico. **[Structure and organization of a cardiology hospital.]** *Tecnica Ospedaliera*, Milano, 1979, Nov., vol. 9, no. 11, pp. 49-55.

The modern trend in hospital design to site all the patient units in one tower block and subdivide them by specialty is criticized on the grounds that this system leads to inflexibility of attitudes. If all the patients were grouped on the basis of the amount of care that they require, the staff would have greater opportunities for team work and outside contracts. The author's strictures are aimed at the organization of a cardiac hospital in particular. He suggests that patients who require the least care should be assigned to a single floor near the 'social' area, i.e. the television lounges, games rooms, and visitors' rooms. Convalescent patients could stay in a convalescent home which has close links with the hospital. These arrangements would also affect the siting of the intensive care unit in relation to the diagnostic and treatment areas, and the author proposes that the latter could be concentrated in a tower block, with one floor assigned, for example, to admissions, another to the out-patient clinics, yet another to the day hospital. A cardiology hospital needs a population of at least two million inhabitants if it is to operate at an economic level.

ORTHOPAEDICS

See Abstract No. 245

SURGERY

See also Abstract No. 159, 277

291. MCCARTHY, E. G. and FINKEL, M. L. **The expensive boom in the surgery business.** *Business and Society Review*, New York, 1979, no. 30, pp. 62-64.

Health care costs in the United States are rising at nearly twice the rate of general inflation. All projections forecast staggering costs in the future. Nowhere is the

increase more apparent than in hospital services, where operating theatre costs account for the largest proportion of the increase. Of the many explanations offered for this, the one suggested most frequently is that there may be too many surgeons for the needs of the population. This situation has encouraged researchers to investigate the appropriateness of many surgical procedures performed on patients. Several mechanisms have been used to certify surgical necessity, but all do so after the operation has been carried out. The second-opinion elective surgery programme is designed to screen patients before they undergo surgery. Such a programme has been conducted since 1972 by Cornell University Medical College in conjunction with several union welfare funds. The operation and results of this programme are outlined. Experience has shown that it can not only screen potential unnecessary surgery, but also has the ability to contain costs.

292. LUFT, H. S., BUNKER, J. P. and ENTHOVEN, A. C. **Should operations be regionalized?** *New England Journal of Medicine*, Boston, Mass., 1979, Dec. 20, vol. 301, no. 25, pp. 1364-1369.

This study examines mortality rates for 12 surgical procedures of varying complexity in 1,498 hospitals to determine whether there is a relationship between a hospital's surgical volume and its surgical mortality. The mortality of open-heart surgery, vascular surgery, transurethral resection of the prostate, and coronary by-pass decreased with increasing number of operations. Hospitals in which 200 or more of these operations were done annually had death rates, adjusted for case mix, 25 to 41 per cent lower than hospitals with lower volumes. For other procedures, the mortality curve flattened at lower volumes. For example, hospitals doing 50 to 100 total hip replacements attained a mortality rate for this procedure almost as low as that of hospitals doing 200 or more. Some procedures, such as cholecystectomy, showed no relation between volume and mortality. The results may reflect the effect of volume or experience on mortality, or referrals to institutions with better outcomes, as well as a number of other factors, such as patient selection. Regardless of the explanation, these data support the value of regionalization for certain operations.

MATERNITY

See also Abstract No. 207

293. WIENER, C. and others. **Trajectories, biographies and the evolving medical technology scene: labour and delivery and the intensive care nursery.** *Sociology of Health and Illness*, Henley-on-Thames, 1979, Dec., vol. 1, no. 3, pp. 261-283.

The relationship between the course of an illness (the 'trajectory') and the medical staff and machinery ('biographies') which treat it can be very complex. The author attempts to find explanatory patterns amongst the complexities of medical technology and the controversies which arise from its use. She uses labour, delivery and the work of intensive care nurseries to describe the birth 'trajectory'. The 'biographies' involved include wards, machines, medical specialties, hospital staff, parents and the infant itself. The author describes the feelings of those taking part, particularly when the birth is accompanied by 'life and death' decisions and an unfamiliar plethora of machinery. Parental questioning of medical intervention often puts a strain on the

relationship between staff and parents which in turn affects the 'biography' of the infant. Developments in neonatal intensive care have produced: (i) the evolution of new specialties; (ii) centralization of specialized newborn services; (iii) unexpected anxiety for parents; and (iv) heavy demands on staff skills. A greater number of premature and sick babies now survive and time will tell whether there is a relationship between an expansion in neonatal care and the numbers of chronically sick.

294. PERLSTEIN, P. H., EDWARDS, N. K. and SUTHERLAND, J. M. **Neonatal hotline telephone network.** *Pediatrics*, Evanston, Ill., 1979, Oct., vol. 64, no. 4, pp. 419-424.

Between 1972 and 1975 direct telephone lines were installed connecting six nurseries in regional hospitals with the newborn intensive care unit at the Cincinnati Children's Hospital. Changes in neonatal mortality were used as the chief measure in evaluating the effect of the system on the care of the newborn. Data from three of the connected hospitals were compared with three non-connected hospitals with similar facilities. The installation of the telephones did not affect the number of neonatal deaths at the hospital of birth, but it did result in a larger number of babies being transferred to the neonatal unit sooner after birth and with a greater chance of survival. The cost of such a service is a small price to pay for improvement in both neonatal survival and in the relationships between the special care centre and the regions it serves.

PSYCHIATRY

See also Abstract Nos. 178, 249, 253, 266, 267

295. FOTTRELL, E. and others. **'Asset stripping' the declining mental hospital.** *British Medical Journal*, London, 1980, Jan. 12, vol. 280, pp. 89, 90.

A psycho-geriatric day hospital was developed in a long-stay back ward of Tooting Bec Hospital in South-West London, the patient population of which had decreased by half in 10 years. The functioning of the unit over two years (1976-8) was analyzed. Women in the 70-80 age group with varying degrees of dementia benefited most from such facilities. The desirability of developing such units in view of the expected increase of elderly mentally infirm patients and the cut-back in Government spending is discussed.

296. LANGSLEY, D. G. and ROBINOWITZ, C. B. **Psychiatric manpower: an overview.** *Hospital and Community Psychiatry*, Washington, D.C., 1979, Nov., vol. 30, no. 11, pp. 749-755.

There are between 25,000 and 30,000 psychiatrists in the United States, of whom 17,000 are in actual clinical practice. They tend to concentrate on metropolitan areas, but although distribution varies, there are very few regions without a psychiatrist. A large percentage work in private practice or in state and county psychiatric hospitals. The numbers working in community mental health centres have decreased recently, possibly because a large number of centres are not hospital-based. There is a severe shortage of child psychiatrists and those specializing in the psychiatric problems of the elderly. Psychiatry in the United States has been seriously affected by health service

cuts and psychiatrists are the lowest paid of all medical specialists. There is an urgent need for federal and state support for psychiatric training courses in state hospitals, Veterans Administration hospitals and community mental health centres. Such an approach would increase the number of psychiatrists in the public service.

297. HASSALL, C. **Closing a mental hospital [to] admissions: predictions and predicaments.** *Hospital and Health Services Review*, London, 1979, Nov., vol. 75, no. 11, pp. 393-395.

Powick Hospital (an old psychiatric hospital) is being replaced by two new general hospital psychiatric in-patient units, sited in the two main urban centres of the catchment area (Worcester and Kidderminster), and a full range of community-based supporting services. The two in-patient units are open and the majority of the supporting facilities are available, whilst Powick Hospital is now closed to admissions. This paper is concerned with the fate of the residual population in the hospital and the problems of this situation which, although unique at the present time, may arise elsewhere as similar developments take place. The patient population had been declining for two decades and the opening of the new units accelerated this process. By the end of 1978 there were only 343 patients, two-thirds of them over 64 years of age and 42 per cent with lengths of stay of over 20 years. A major problem is sustaining the morale of both staff and patients. More practical difficulties are the heating and maintenance of buildings and the alteration of staffing levels. Steps taken to combat these problems include: providing an active programme on all long-stay wards; establishment of a multidisciplinary care committee; and conversion of a house in the grounds to hostel-type accommodation.

298. ROSS, T. **A case for special treatment?** *Nursing Mirror*, Sutton, 1979, Dec. 6, vol. 149, no. 23, pp. 18-21.

The author reports on a visit to Broadmoor Hospital, which caters for psychiatric patients who 'on account of their dangerous, violent or criminal propensities' need treatment under conditions of special security. Those who do not come directly from the courts may have been transferred from another hospital or from prison. These are prisoners found to be mentally ill while serving a sentence or hospital patients who are too troublesome for the conventional psychiatric hospital to cope with. From conversations with the medical and nursing staff and patients, the author reports on compulsory orders, the treatment regime, how patients pass their time in work and leisure, the conditions in which they live, and the problems which arise in caring for this type of patient.

299. SPENCER, D. A. **The rehabilitation of the long-stay mentally handicapped adult in hospital.** *Teaching and Training*, Harrow, 1979, vol. 17, no. 2, pp. 46-49.

The discharge of a long-stay mentally handicapped patient from hospital should be preceded by: (i) a case conference of all staff concerned with the patient; (ii) an assessment of the patient's level of skills; and (iii) a period of social education. Emphasis on aids to daily living skills is important and a high degree of independence needs to be achieved in the ward before discharge is possible. Social education should include the handling of money, shopping and how to summon help. Recreational activities should not be overlooked. A trial period in their new surroundings is almost always best for

the patient and links between the hospital and the patient's new home need to be maintained for some time after discharge. A check list of performance used for pre-discharge patients at Meanwood Park Hospital, Leeds, is included.

300. GRINTEN, T. E. D. van der and KLIJNSMA, G. H. Uitbreiding van ambulante geestelijke gezondheidszorg. **[Expansion of ambulatory mental health care.]** *Tijdschrift voor Sociale Geneeskunde*, Amstelveen, 1979, Dec. 12, vol. 57, no. 24, pp. 807-812.

In view of rising unemployment, the Scientific Council for Government Policies has instituted an investigation into the possibility of creating employment opportunities in ambulatory mental health care services. This type of health care is directed towards psycho-social problems. The demand for expansion can only be assessed by the increase in the number of clients requiring the services, which results from changing patterns of complaints and a growing tendency to give many problems of human behaviour a medical aspect. This requires an increase in staff and more professional training. New assessments will be needed of relations between various professional groups and the relationship of these groups to voluntary workers and clients. The present organization of the services was found to lack co-ordination. A re-structuring exercise is suggested, with the creation of a strong organizational base within which proposals for expansion can be assessed and developed. The base should be flexible enough to respond and adapt to new requirements and should not be a substitute for expansion, but create a climate favourable to the expansion of activities.

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